

CONTENTS

PREFATORY CHAPTER: AN OLD PROFESSOR OF ANIMAL HUSBANDRY	
RUMINATES, <i>Max Kleiber</i>	1
TRANSPORT THROUGH BIOLOGICAL MEMBRANES, <i>Erich Heinz</i>	21
GROWTH AND DIFFERENTIATION, <i>R. M. Gaze</i>	59
COMPARATIVE PHYSIOLOGY: METABOLISM, <i>J. Awapara and J. W. Simpson</i>	87
RESPIRATION, <i>Leon Bernstein</i>	113
GASTRIC JUICE AND SECRETION: PHYSIOLOGY AND VARIATIONS IN DISEASE, <i>George E. Farrar, Jr., and Robert J. Bower</i>	141
COMPARATIVE PHYSIOLOGY: INVERTEBRATE EXCRETORY ORGANS, <i>Leonard B. Kirschner</i>	169
LYMPHATICS AND LYMPHOID TISSUES, <i>Lane Allen</i>	197
SYSTEMIC CIRCULATION, <i>Allen A. Rovick and Walter C. Randall</i>	225
HEART, <i>W. Schaper</i>	259
THE ADENOHYPOPHYSIS AND ITS HYPOTHALAMIC CONTROL, <i>Roger Guillemin</i>	313
PARATHYROID HORMONE, <i>Claude D. Arnaud, Jr., Alan M. Tenenhouse, and Howard Rasmussen</i>	349
REPRODUCTION, <i>R. V. Short</i>	373
THE NERVOUS SYSTEM AT THE CELLULAR LEVEL, <i>A. R. Martin and J. L. Veale</i>	401
CENTRAL NERVOUS SYSTEM: AFFERENT MECHANISMS AND PERCEPTION, <i>P. O. Bishop</i>	427
HEARING, <i>J. Schwartzkopff</i>	485
VISUAL PROCESSES IN THE <i>Limulus</i> EYE, <i>Myron L. Wolbarsht and Stephen S. Yeandle</i>	513
HIGHER FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM, <i>A. Mosfeldt Laurson</i>	543
CENTRAL NERVOUS SYSTEM: MOTOR MECHANISMS, <i>Earl Eldred and Jennifer Buchwald</i>	573
INDEXES	
AUTHOR INDEX	607
SUBJECT INDEX	632
CUMULATIVE INDEX OF CONTRIBUTING AUTHORS, VOLUMES 25 TO 29	649
CUMULATIVE INDEX OF CHAPTER TITLES, VOLUMES 25 TO 29	650

AUTHOR INDEX

A

- Abajian, J. C., Jr., 134
 Abbott, W., 106
 Abboud, F. M., 232, 238
 Abbrecht, P. H., 28
 Abdel Raouf, M., 394
 Abel, F. L., 234, 279, 280
 Abildskov, J. A., 287
 Abood, L. G., 41, 43
 Abraham, G. J. S., 228
 Abraham, R. E., 271, 274, 275
 Abrahams, V. C., 228
 Abrams, R. L., 315
 Abreu, B. E., 579
 Abu-Jaudeh, C. N., 494
 Ackerman, E., 494
 Ackerman, F. H., 289
 Ackermann, D., 104, 105
 Ackman, R. G., 96
 Adachi, I., 601
 Adal, M. N., 574, 575
 Adam, G., 552
 Adams, E., 103
 Adams, P. H., 49
 Adams, M. S., 74
 Adamson, L., 29
 Adelman, W. J., 401, 402
 Ades, H. W., 595
 Adey, W. R., 552
 Adkins, R. J., 562
 Adolph, A. R., 519, 521, 529, 536, 537
 Adolph, R. J., 132
 Adrian, H. O., 432, 443, 450, 548
 Afifi, A., 599
 Afonso, S., 266, 269
 Ager, M. E., 41
 Agosin, M., 92, 93
 Agostoni, E., 116, 118
 Ahmed, K., 42, 45, 46
 Ahn, H., 560
 Aho, I., 363, 364
 Ahren, K., 35
 Aiello, E., 103
 Atkin, L. M., 443, 450, 549
 Ajmone Marsan, C., 557
 Akedo, H., 36
 Akert, K., 543
 Albe-Fessard, D., 428, 548, 600, 601
 Alberga, A., 389
 Albers, C., 129, 133
 Albers, R. W., 40
 Albert, A., 331
 Albright, C. D., 116, 123
 Albright, F. A., 363
 Aldrete, J. S., 165
 Aldridge, J., 141, 148
 Aldridge, V. J., 559
 Alexander, G., 394
 Alexander, N., 234
 Alexander, R. S., 284
 Alexander, S., 230
 Alford, B. R., 505
 Aliapoulos, M. A., 356, 357, 362
 Allanson, J. T., 443
 Allen, C., 340
 Allen, K., 100, 102, 105
 Allen, L., 197-224; 197, 198, 199, 201, 202, 203, 204, 205, 208, 210, 216
 Allfrey, V. G., 75
 Allison, A. C., 359
 Alonso, D., 49
 Altman, J. A., 502
 Altura, B. M., 241
 Alvarado, F., 23, 29, 30
 Alvarado, R. H., 174, 177
 Amassian, V. E., 433, 436
 Anast, C., 29, 356, 363
 Andersen, J., 544, 562
 Andersen, P., 439, 545, 558, 562
 Anderson, A. C., 10
 Anderson, A. D., 190
 Anderson, E., 272, 344
 Anderson, F. S., 271
 Anderson, J. C., 146
 Anderson, K. W., 161
 Anderson, L. L., 379, 382, 384, 385, 388, 389
 Anderson, R. R., 333
 Anderson, S., 153
 Anderson, W., 165
 Andersson, B., 575
 André, W., 513, 527
 Andreoli, C., 384
 Andrew, B. L., 433
 Andrews, R. J., 134
 Andrews, W. H. H., 247
 Angel, H., 391
 Angelakos, E. T., 304, 305, 306
 Angelone, A., 122
 Annegers, J. H., 23
 Ansevin, K. D., 74
 Antal, J., 233
 Antharvedi, A., 226
 Anthonisen, N. R., 121
 Anthony, A., 74, 494
 Antoni, H., 298, 300
 Antunes-Rodrigues, J., 338, 345, 393
 Ackl, V. S., 229
 Appelberg, B., 577, 578
 Applebaum, S. W., 89
 Apter, J. T., 225, 226
 Aravena, L. C., 92
 Arborelius, M., Jr., 124
 Archer, O. A., 216
 Archibald, D., 382
 Ardeman, S., 159, 160, 161
 Ardouin, P., 586
 Arealis, E., 285
 Areskog, N. H., 210
 Arimura, A., 340
 Armand, J., 125
 Armett, S. J., 430, 431, 432
 Armstrong, D. T., 380, 381, 382, 385
 Armstrong, G. G., 225
 Armstrong, W. McD., 27
 Arnaud, C. D., Jr., 349-72
 Arnold, G., 269
 Arnold, K., 236
 Arnoldi, C. C., 246
 Arnott, M. S., 330
 Aronson, B. G., 216
 Arora, H. L., 60
 Arturson, G., 210, 243, 246
 Arushanyan, E. B., 597, 598
 Asakura, T., 127
 Asano, M., 232, 240
 Aschheim, E., 243
 Ashby, W. R., 545, 557
 Ashkar, E., 237
 Ashwell, G., 90
 Ashworth, C. T., 200
 Askari, A., 41
 Astrup, P., 127
 Atanackovic, D., 234
 Atkinson, R. A., 241
 Attinger, E. O., 226
 Attradi, D. G., 59, 62, 71, 81
 Auchincloss, J. H., Jr., 127
 Aucutt, C., 127
 Aulsebrook, K. A., 31, 35
 Aurbach, G. D., 349, 350, 351, 352, 353, 354, 355,

- 356, 357, 363, 364, 365,
366
Austen, W. G., 260
Austin, C. R., 375
Austin, N. S., 321
Austin, S., 272
Aviado, D. M., 113
Awad, M. Z., 26
Awapara, J., 87-112; 92, 93,
95, 100, 101, 102, 105,
106
Axelrod, S., 504
Azuma, T., 248
Azzali, G., 207
- B
- Baba, H., 127
Babad, A. A., 125
Bacanar, M. B., 266
Bacchi, G., 375
Bachrach, W. H., 144
Bach-y-Rita, P., 587
Badeer, H. S., 268
Bader, H., 42, 43
Baer, L. J., 243
Baernstein, H. D., 92
Baggett, B., 389
Baghdiantz, A., 356
Bahl, K. N., 172
Bailey, J. M., 50
Bain, A. D., 395
Baker, C. H., 244
Baker, D. W., 291
Baker, H., 533, 537
Baker, P. F., 401, 402
Bakke, J., 324
Baldright, V., 272
Baldwin, D. S., 247
Baldwin, E., 107
Baldwin, E. H. F., 106
Balint, P., 233
Ballard, C. L., 206
Bally, C., 543
Balogh, K., Jr., 355,
496
Balvin, R., 553
Banerjee, C. M., 128,
210
Bannister, W. H., 49
Barber, H. N., 390
Barber, J. L., 133
Barchas, J. D., 554
Barer, G. R., 114, 123
Bargeton, D., 128, 130
Barker, D., 573, 574, 575,
600
Barker, J. N., 248
Barker, S. B., 306
Barlow, H. B., 457, 460,
463, 464
Barlow, T. E., 238
Barnett, G. O., 225, 288
Barondes, S. H., 551
Barr, C. E., 48
Barr, L., 178, 179, 180,
418
Barraclough, C. A., 334
Barres, G., 130
Barrett, J. F., 327
Barrios, P., 575, 576
Barron, D. H., 374
Barry, R. J., 20, 30,
31
Bartelstone, H. J., 284,
291
Bartholomew, L. G., 162
Bartlett, P., 39
Bartolomei, G., 272,
273
Barton, M. A., 146
Bartorelli, C., 229
Bartosuk, A. K., 601
Bartter, F. C., 362, 363,
364
Baru, A. V., 506
Basur, P. K., 391
Bass, A. D., 35
Bassingthwaite, J. B.,
289
Bates, D. V., 125
Batt, M., 340
Bauereisen, E., 283,
284
Baule, G. H., 127
Baulieu, E. E., 389
Baum, T., 238
Bauman, A. W., 364
Baumann, C., 230
Baumann, F., 520
Baumgartner, G., 470
Baust, W., 502
Baylor, D., 545
Bazaes, S., 343
Beacham, J., 146
Beacham, W. S., 230
Bealmear, M., 219
Beament, J. W. L., 192
Beames, C. G., 98
Beams, H. W., 172,
187
Beath, M. M., 392
Beck, C., 495, 496
Beck, L., 232
Beck, S. D., 100
Becklake, M., 236
Beechey, R. B., 89
Beer, B., 505
Beers, J. R., 183
Beeston, D., 143, 144
Bégin, N., 22
Békésy, G. V., 466,
505
Bélanger, L. F., 357,
358
Bell, E. T., 375
Bello, J., 23
Belyaeva, Z. V., 229
Benchimold, A., 283
Bender, M. B., 592
Bender, S., 216
Benedetti, E. I., 40
Benirschke, K., 392, 395
Bennett, A., 277
Bennett, A. F., 96
Bennett, D., 331
Bennett, E. L., 553,
554
Bennett, M. V. L., 413,
418
Bennish, A., 273
Benolken, R. M., 521, 522,
529, 531, 532
Benson, J. A., Jr., 212
Bentley, P. H., 146
Benton, J. G., 580
Bentsson, G., 389
Beránek, R., 582
Berg, G. G., 40
Berg, H. C., 49
Berger, C. K., 33
Berger, W., 418
Berglund, E., 281
Bergman, W., 96
Bergstrand, C. G., 391
Bergström, R. A. M., 593,
599
Beritashvili, I. S., 550
Berkaloff, A., 183, 187
Berlucchi, G., 502
Berman, A. J., 564
Berman, D. T., 394
Berman, M., 357, 366
Bernard, G. R., 211
Bernard, J. P., 122
Bernatovics, A. J., 12
Bernatz, P. E., 165
Berne, R. M., 228, 242,
247, 271
Bernstein, D., 363
Bernstein, L., 113-40;
132
Bernstein, W. H., 283
Berridge, M. J., 185,
186
Berson, S. A., 314, 315,
317, 353, 355
Berta, G., 236
Berwick, L., 77, 78
Bessou, P., 575, 576
Best, L., 502
Betz, E., 263, 275
Beutner, E., 363, 364
Bevegård, B. S., 242,
246
Bevegård, S., 236
Beviz, A., 241
Bhagat, B., 305
Bhatt, B. J., 506
Bheemeswar, B., 95
Bianconi, R., 580, 581,
586
Bibb, W. R., 36
Biber, H., 37
Bickel, D., 270
Bickford, R. G., 505
Bieber, L. L., 45
Bielawski, J., 46
Bierling, A., 353
Bierman, H. R., 197
Bilgutay, A. M., 233

- Billingham, R. E., 393
 Billington, W. D., 376, 377
 Bindman, L. J., 556, 557
 Bing, R. J., 273, 274
 Bird, G. S., 242
 Birge, S. J., Jr., 357, 365
 Birkner, M. L., 183
 Birks, R. I., 408, 413
 Biro, J., 33
 Biscoe, T. J., 128
 Bishop, P. O., 427-84
 Bishop, S. H., 107
 Bittman, E., 228
 Bittner, J., 31, 35
 Bjure, J., 125, 133
 Black, D. L., 385
 Black, E. C., 91
 Blackman, J. G., 420
 Blair, E. L., 142
 Blanco, S., 315, 317
 Bland, K. P., 388
 Blandamer, A., 89
 Blaxter, K. L., 13
 Blecher, M., 33, 34, 35
 Bliss, D., 547
 Bloch, K., 96, 97, 99
 Block, J., 234
 Block, J. B., 30
 Block, R., 106
 Blomstrand, R., 215
 Blond, D. M., 48
 Blonsk, E. R., 580
 Bloom, W., 361
 Bloomquist, E., 305
 Bloor, C. M., 234
 Blough, D. S., 477
 Blount, R., 41, 50
 Bluemchen, G., 273, 274
 Blum, J. J., 243
 Blumenthal, W. S., 133
 Boatman, D. L., 238
 Bockus, H. L., 141, 143
 Boelter, D. D., 12
 Boen, S. T., 158
 Bogaard, J. M., 268
 Bogdanski, D. F., 103
 Bogoroch, R., 35
 Bohr, D. F., 261
 Boistel, J., 406
 Bollman, J. L., 212
 Bond, H. W., 556
 Bondurant, S., 116
 Bonner, J. T., 74
 Bonomi, L., 103
 Bonsett, C. A., 579
 Bonting, S. L., 39, 183
 Boon, D. J., 245
 Boord, R. L., 490
 Borenstein, P., 547
 Borle, A. B., 357, 359, 365
 Boroffka, I., 181, 182, 184
 Borsellino, A., 518, 524, 525, 526
 Borst, H. G., 281
 Bos, C. J., 40
 Bosackova, J., 30, 51
 Boshes, B., 580
 Bosma, J. F., 131
 Boss, S., 363, 364
 Bossman, H., 576
 Bossu, J. B., 514
 Bottin, R., 119
 Boucher, R., 598, 599
 Boudreau, J. C., 499
 Bouhot, G., 270
 Bouma, H., 467
 Bourne, A. G., 517
 Bourne, G., 183
 Boutwell, R. K., 358
 Bouverot, P., 131
 Bouvier, G., 590, 591, 598, 599
 Bower, R. J., 141-68
 Bowerman, A. M., 384, 385, 388, 389
 Bowers, C. Y., 318, 319, 323, 327, 338, 339
 Bowsher, D., 428
 Bowyer, A. F., 284
 Boyarsky, L. L., 229
 Boyd, I. A., 433, 573, 574
 Boyer, P. D., 45
 Bradbury, J., 526, 539
 Bradbury, J. T., 380
 Bradbury, S., 376, 377
 Bradley, E. C., 234
 Bradley, R. D., 129
 Bradshaw, J., 333
 Brady, A. J., 296, 297
 Bramante, P. O., 232
 Brambell, F. W. R., 374
 Brandenburg, J., 172
 Bratanov, K., 392
 Braun, M., 411, 412
 Braunwald, E., 228, 230, 234, 265, 266, 269, 279, 280, 283, 284
 Bread, J. D., 132
 Brecher, G., 221
 Bredberg, G., 495
 Breeden, C. J., 130
 Brest, A., 216
 Bretschneider, H. J., 259, 260, 264, 269
 Brick, I., 146
 Bricker, N. S., 48
 Bridges, R. G., 98
 Bridgman, C. F., 580, 582
 Brindley, G. S., 464, 519, 588
 Bristow, J. D., 281
 Britman, N. A., 265, 279, 280
 Brobeck, J. R., 129
 Broca, A., 467
 Brockerhoff, H., 96
 Brockhouse, J. E., 236
 Brockman, S., 281
 Brodal, A., 580, 587, 588, 590, 591, 594, 595, 598, 599, 600
 Broderick, F. L., 143, 144
 Brodie, B. B., 103, 306
 Brodsky, W. A., 28, 29
 Brody, M. J., 229, 238
 Brody, S., 1, 2
 Brokaw, C. J., 115
 Bromberger-Barnea, B., 124
 Bronk, J. R., 30, 35
 Brookhart, J. M., 421, 422
 Brooks, C. M., 299
 Brooks, F. P., 149
 Brooks, J., 134
 Brosemer, R. W., 103, 104
 Browder, E. J., 432, 544
 Brown, A. M., 233
 Brown, A. P., 79
 Brown, F., 179, 180
 Brown, G. W., Jr., 107
 Brown, H. D., 43, 44
 Brown, I., 11, 12
 Brown, J. E., 459, 518, 519, 522
 Brown, J. L., 451, 470
 Brown, K. T., 519
 Brown, M. C., 575, 576
 Brown, P. K., 450
 Brown, S., 6
 Brown, T. S., 602
 Brown, W. E., 380
 Brown-Grant, K., 333
 Brownhill, L. E., 392, 395
 Browne, N. L., 238, 244
 Bruce, D. W., 288
 Bruce, T. A., 285
 Bruner, J., 555
 Brunet, P. C. J., 102, 103
 Brunner, H., 263
 Brunner, M. A., 380
 Brunsting, J. R., 286
 Brunton, M., 390
 Bryan, A. C., 122, 124
 Bryan, G. W., 178
 Bryant, C., 94
 Buchthal, F., 600
 Buchwald, J., 573-606; 553, 574
 Buck, C., 551
 Bucy, P. C., 587, 588
 Budy, A. M., 349, 362
 Bueding, E., 88, 89, 97, 92
 Bullock, T. H., 457, 460, 461, 549, 550, 557
 Buño, W., Jr., 544
 Burch, G. E., 226

- Bures, J., 500, 502, 504, 551, 552
 Buresová, O., 500, 502, 504, 551, 552
 Burg, M. B., 38
 Burge, H., 164
 Burgeat, M., 498
 Burgeat-Menguy, C., 498
 Burgen, A. S. V., 63, 305
 Burger, J. W., 170, 171, 175, 176, 179, 180
 Burkhardt, D., 487
 Burns, B. D., 470, 549
 Burns, S. K., 545
 Bursell, E., 104
 Burton, A. C., 225, 236, 239, 290
 Burtt, E. A., 11
 Buscaino, V. M., 587
 Buser, P., 547, 559
 Busnel, R.-G., 485, 487, 488
 Bussmann, W. D., 260
 Butcher, R. W., 384
 Butler, J., 121
 Butler, R. A., 497
 Butte, J., 343
- C
- Caday, L. B., 392
 Caffrey, R. W., 220
 Cahlander, D. A., 492
 Cahn, M. B., 75
 Cahn, R. D., 75
 Cain, J. D., 162
 Cain, S. M., 134
 Calaby, J. H., 376
 Calaresu, F. R., 227, 234
 Callender, S. T., 160
 Callingham, B. A., 305
 Calma, I., 439
 Calnan, J. S., 208
 Calverley, C. E., 2
 Cameron, E. C., 356, 357
 Campbell, A. D., 35
 Campbell, E. J. M., 133
 Campbell, J. W., 93, 101, 107
 Campbell, R. A., 506
 Campbell, W. W., 364
 Cander, L., 133
 Canepa, J. F., 306
 Capen, C. C., 354
 Carabin, S., 598, 599
 Caravaggio, L. L., 39
 Card, W. I., 154, 157
 Cardot, J., 103
 Care, A. D., 353, 355, 356, 357
 Carefoot, T. H., 178, 179
- Carey, F. G., 133
 Carl, G., 331
 Carleton, R. A., 284
 Carlsson, A., 362
 Carmel, P. W., 494
 Carmeliet, E., 297, 301
 Carnes, W. H., 355
 Caro, C. G., 120
 Carofoli, E., 45, 46
 Carolin, D. A., 26
 Carroll, E. L., 363, 364
 Carone, F. A., 364
 Carpenter, M. B., 598, 599, 600, 601
 Carpenter, O., 582
 Casida, L. E., 380, 383, 386
 Casley-Smith, J. R., 198, 199
 Casteels, R. G., 297
 Castle, W. B., 157
 Castleman, B., 363
 Castles, J. J., 33
 Kaufman, E. J., 359
 Causton, A., 352
 Cenacchi, V., 501
 Cereijido, M., 25, 26
 Chai, C. Y., 129, 227, 228
 Chamberlain, T. J., 555
 Chambers, J. W., 35
 Chambers, W. W., 546, 588, 592
 Chanarin, I., 159, 160, 161
 Chance, B., 45, 46
 Chandler, W. K., 401, 402, 403
 Chandra, P., 390
 Chanes, R., 353
 Channing, C. P., 378, 379
 Chapeville, F., 106
 Chapman, B., 40
 Chapman, D. B., 285
 Chapman, R. M., 538
 Chapman-Andresen, C., 181
 Chappell, J. B., 45, 46
 Charlier, A. A., 122, 279, 287
 Chasis, H., 247
 Chatel, R., 233
 Chausmer, A., 356
 Chavez, C. M., 208
 Chefurka, W., 89, 90, 91, 94
 Chen, P. S., 100
 Cheney, B. A., 356, 357
 Cherian, A. G., 358
 Cherniack, N. S., 120, 129
 Chernick, V., 122
 Chernikoff, Th., 13
 Chiang, S. T., 116, 117
 Chiarandini, D. J., 405, 417
- Chin, C. H., 92
 Chinard, F. P., 125
 Chidsey, C. A., 234
 Chien, S., 232
 Chignell, C. F., 35
 Chodkiewicz, M., 394
 Chorlton, B., 352
 Chow, T. J., 178, 179
 Chowdhury, T. K., 26
 Chowers, I., 335, 345
 Christensen, H. N., 22
 Christensen, R. C., 243
 Christian, L. C., 392, 393
 Christiansen, J. A., 496
 Christie, G. S., 45, 46
 Christman, E. H., 587
 Chun, R. W. M., 593
 Cinkotai, F. F., 125, 126
 Cividanese, L., 23
 Clare, M. H., 555, 556, 580, 590
 Clark, A. J., 99
 Clark, L. F., 440, 441
 Clark, M. E., 226
 Clark, M. J., 389
 Clark, W. G., 104
 Clarke, N. P., 227
 Clausen, T., 34
 Clauss, R. H., 211
 Clayton, R. B., 100
 Clements, A. N., 95
 Coats, A. C., 497
 Cockvill, R., 45, 46
 Code, C. F., 154
 Cody, D. T., 595
 Cofre, G., 34
 Cohen, A., 273, 274, 340
 Cohen, A. I., 336
 Cohen, B., 594
 Cohen, H. D., 551
 Cohen, L. S., 247, 274
 Cohen, M. I., 154
 Cohen, M. J., 578
 Cohen, M. W., 408, 413
 Cohen, P. P., 107
 Cohen, R. B., 355
 Cohn, D. V., 360, 361
 Cohn, J. E., 133
 Cohn, P., 23
 Colby, E., 153
 Cole, C. R., 354
 Cole, J. D., 28
 Colebatch, H. J. H., 123
 Coleman, A. J., 133
 Coleridge, H., 128
 Coleridge, J. C. G., 128
 Collins, J. A., 120
 Collins, W. E., 360
 Colonge, A., 338, 386
 Colonnier, M., 470
 Colucci, A. V., 89
 Coman, D. R., 77, 78

- Comar, C. L., 365
 Comroe, J. H., Jr., 115
 Condie, R. M., 217
 Cone, R. A., 518
 Connor, R. S., 228
 Conti, F., 403
 Conway, E. J., 47
 Conway, J., 235
 Cook, A. W., 432, 544
 Cook, P., 41, 50
 Cooke, A. R., 148, 149
 Cooper, B. A., 159
 Cooper, C. W., 357
 Cooper, I. S., 598, 600, 601
 Cooper, M. D., 217
 Cooper, S., 574
 Cooper, T., 237
 Coote, S. H., 229
 Copp, D. H., 355, 356, 357, 358, 365
 Coraboeuf, E., 270, 294, 299
 Corazza, R., 561
 Corbin, A., 336, 340, 343
 Corcondilas, A., 233
 Corda, M., 583, 585, 586
 Corday, E., 234
 Cordier, R., 490
 Corrie, W. S., 39
 Cortesina, G., 586
 Cotes, J. E., 113
 Cotte, M. K., 227
 Cottier, H., 220
 Cottrell, G. A., 101
 Cotty, V. E., 105
 Coubrough, R. I., 391
 Coudert, S. P., 387
 Coulombre, A. J., 71
 Coulson, R. A., 364
 Coulter, N. A., Jr., 122
 Courier, R., 338, 386
 Courtice, F. C., 205
 Cousins, F. B., 364
 Cousy, R., 297
 Covell, J. W., 265, 279, 280
 Covell, W. P., 504, 505
 Cowan, J. D., 546
 Cowan, W. M., 498
 Cowgill, R. W., 89
 Cowley, R. A., 234
 Cox, A. J., 141
 Cox, W. S., 591
 Crabbe, J., 34
 Craig, L. C., 349, 350, 351, 357
 Craig, R., 169, 185
 Cramer, C. F., 357, 365
 Crane, R. K., 30, 51
 Cranefield, P. F., 291, 297, 300, 303
 Crank, J., 117
 Crawford, J. D., 363
 Cretin, A., 360
 Creutzfeldt, O. D., 460, 557
 Crew, F. A. E., 375
 Critchlow, V., 324, 333, 583, 585
 Crofford, O. B., 33
 Crofts, A. R., 45, 46
 Crone, C., 244
 Cronkite, E. P., 220
 Cropp, G. J. A., 290
 Crosby, E. C., 596
 Cross, S. B., 26
 Crowe, A., 574, 575, 576, 581
 Crowley, D. E., 490
 Croxatto, H., 343
 Crumpton, C. W., 269
 Cruz, J., 460, 462
 Cuddy, R. P., 236
 Cuénod, M., 228
 Cugell, D. W., 133
 Cumming, G., 117, 132
 Cunningham, D. J. C., 130, 132, 133
 Cunningham, R. S., 203
 Gupta, D. N., 282
 Curran, P. F., 25, 26, 28, 29, 49
 Curtis, A. S. G., 76, 77, 79
 Custer, J., 247
 Cyr, S. D., 104
 Cytawa, J., 551
 Czarnowska-Misztal, E., 363, 365
- D
- Dagenais, G. R., 236
 Dagnino, N., 500
 Dahlström, A., 276, 304, 306
 Dahlstrom, I. J., 233
 Daily, L. J., Jr., 215
 Dainty, J., 29
 Dalgliesh, C. E., 103
 Dalland, J. I., 492
 Daly, M. DeB., 123, 131, 235
 Damadian, R., 37
 Damato, A. N., 236, 303
 Dameshek, W., 216
 Damin, G. J., 354
 D'Angelo, S. A., 341
 Daniel, P. M., 214, 574
 Danielli, J. F., 183
 Danzer, L. A., 133
 Darby, W. J., 374
 Darian-Smith, I., 437, 438
 Dastoli, F. R., 94
 Daughaday, W. H., 315, 316
 Davenport, H. W., 28, 141, 162
 Davey, M. R., 574
 David, E. E., Jr., 449
 David, M. A., 336, 339
 Davidson, A. G. F., 355, 356, 357
 Davidson, D. G., 364
 Davidson, E. H., 75
 Davidson, O. W., 389, 390
 Davies, B. M. A., 353
 Davies, R. E., 49
 Davies, R. O., 129, 130
 Davignon, J., 240, 242
 Davis, H., 502, 558, 559
 Davis, H. P., 393
 Davis, L. D., 228
 Davis, R., 78, 354
 Davis, R. K., 128, 209
 Davison, C., 161
 Dawes, E. D., 23
 Dawkins, M., 375
 Dawson, A., 124, 125
 Dawson, R. M. C., 42
 Day, B. N., 388
 Day, M. F., 183
 Deák, G., 228, 261
 Deane, H. W., 365
 Deanesly, R., 382
 Dear, W. E., 322
 Debecker, J., 558, 559
 DeBra, T. W., 270, 290
 Debrecezi, L., 228, 260, 261
 Decandia, M., 119
 DeCuri, M., 234
 de Duve, C., 359
 Deecke, L., 559
 DeFares, J. G., 225
 Defendi, V., 197
 DeGeest, H., 122, 228, 233, 235, 281, 282
 De Graeff, J., 50
 De Grouchy, J., 391
 De Haan, R. L., 82
 De Herdt, P., 306
 Dehnel, P. A., 178, 179
 Deiser, H. R., 362
 Deiss, W. P., Jr., 361, 362
 de Jalon, G., 303
 Dejours, P., 113, 125, 131
 de la Haba, G., 551
 Delahayes, J., 294
 Delaney, J. P., 247
 de la Rosa, C., 148
 De Lattre, J., 130
 Delavier-Klutchko, C., 37
 del Castillo, J., 407, 408, 411
 Delgado, J. M. R., 590, 592
 Delhez, L., 115, 119
 De Long, G. R., 71

- de Lorenzo, A. J., 419, 420
 de Lores Arnaiz, G. R., 40
 DeLuca, H. F., 35, 349, 354, 357, 363, 365
 DeLuca, M., 45
 Delwaide, P. J., 490
 Demeester, M., 247
 DeMolina, A. F., 230, 231
 Demoll, R., 515, 516, 517, 518
 Dempsey, E. F., 32, 50
 Denamur, R., 381, 385, 386, 387
 Denny-Brown, D., 598
 DePasquale, N. P., 226
 De Robertis, E., 40
 De Schaepeydrver, A. F., 234
 De Schrijver, C., 306
 Desmedt, J. E., 490, 503, 558, 559
 De Sombre, E. R., 389
 Desopoulos, A., 23
 Deuben, R., 319
 Dev, B., 183
 De Valois, R. L., 451, 452, 453, 454, 455, 456, 464, 550
 Devanandon, M. S., 414
 DeVerdiere, C. H., 364
 Devine, C. E., 237
 DeVine, R., 161
 De Vleeschhouwer, G. R., 129, 233, 234
 de Watteville, H., 380
 Dewey, M. M., 418
 Dexter, L., 288
 Dhariwal, A. P. S., 318, 319, 320, 338, 340, 345
 Diamantopoulos, E., 579, 580, 595
 Diamond, I. T., 446, 504
 Diamond, M. C., 553
 Diamond, J. M., 28, 29, 49, 192
 Diana, J. N., 245
 Dicharry, M., 125
 Didier, E. P., 165
 Didio, L. J., 207
 Diete-Spiff, K., 574
 Dietschy, J. M., 28
 Dieudonné, J. M., 286
 DiGiorgi, S., 276
 Di Jeso, F., 105
 Dijkgraaf, S., 486, 487
 Dikov, V., 392
 Dikstein, S., 30
 Dilley, R. A., 48
 Dimond, E. G., 283
 Diner, W. C., 363
 Dingle, J. T., 359
 Distler, A., 240, 245
 Dittbrenner, M., 160
 Divine, R. L., 187
 Dixon, H. B., 277
 Dixon, J. S., 314
 Dixon, R. L., 238
 Dixon, T. F., 360
 Djahanguiri, B., 163
 Doak, S. M. A., 217
 Doba, N., 234
 Dobaj, E., 247
 Dobelle, W. H., 450
 Dodge, F. A., 528, 529
 Dodt, E., 433
 Dokov, V. K., 392
 Doll, E., 267
 Dolovich, M. B., 124, 125
 Donald, D. E., 233, 236, 237
 Donaldson, L. E., 380, 385
 Donaldson, R. M., Jr., 159
 Donato, L., 272, 273
 Donn, A., 28
 Donovan, B. T., 388
 Dorfman, R. I., 353, 376, 384
 Dorr, L. D., 229
 Dorrington, J. H., 382, 384
 Doty, R. W., 559
 Doty, S. B., 357, 360
 Douarin, G., 299
 Doubilet, H., 212, 213
 Dougherty, J., 247
 Douthell, U., 262, 275
 Dow, R. S., 577, 596, 597
 Dowd, P. J., 595, 596
 Dowling, J. T., 363
 Downes, J. J., 131
 Downmen, C. B. B., 229
 Dragstedt, L. R., 145, 147, 148, 150, 164
 Drahota, Z., 45, 46
 Drews, J., 390
 Dreyfuss, J., 36, 37
 Driscoll, T. E., 228
 Drummond, G. I., 91
 Dubner, R., 547
 Ducenas, A., 283
 DuCharme, D. W., 232
 Duchateau, G., 100, 169, 172
 Ducommun, P., 319, 324
 Dudeck, J., 507
 Dudley, J., 294, 406
 Dudley, H. R., 355
 Dudziak, R., 269, 295
 Duggan, P. F., 39
 Duke, J. W., 23
 Dull, T. A., 362
 Du Mesnil de Rochemont, W., 275
 Du Mesnil du Buisson, F., 380, 382, 388
 Dumont, A. E., 205, 211, 212, 213, 215
 Dumortier, B., 486, 487
 Duncan, T., 357
 Dunker, E., 503
 Dunlop, C. W., 443, 450, 549
 Dunn, T. B., 219
 Dunning, D. C., 487, 492
 DuPlessis, D. J., 164
 Durbin, R. P., 24, 28, 29, 39
 Durden, C., 201, 205
 Duthie, H. L., 150
 Duthie, J. J. R., 158
 Dutky, R. C., 99
 Duyff, J. W., 428
 Dyce, B. J., 154, 155
 Dydyńska, M., 47
 Dyro, F. M., 401, 402
- E
- East, J., 219
 Eaton, O. N., 391
 Ebert, R. V., 114
 Ebner, K. E., 45
 Eccles, J. C., 72, 404, 413, 439, 544, 558, 562, 563, 573, 577
 Eccles, R. M., 72, 414, 577, 583, 584
 Eckel, R. E., 48
 Eckertova, A., 326
 Eckstein, J. W., 232, 238
 Eckstein, R. W., 228, 247
 Edelman, I. S., 34
 Edgar, D. G., 379, 386
 Edkins, J. S., 145, 149
 Edward, C., 26
 Edward, D. W., 143
 Edwards, A., 356
 Edwards, A. W. T., 124
 Edwards, M. J., 128
 Edwards, R. G., 378
 Eeg-Larsen, N., 365
 Egan, J. B., 37
 Egan, J. P., 506
 Egawa, J., 364
 Eger, E. I., 125
 Eguchi, E., 516
 Eguchi, Y., 342
 Eich, R. H., 236, 287
 Eichholz, A., 30
 Eichler, A. C., 213
 Eichsberg, J., 42
 Eisenman, G., 403
 Eisenstein, R., 358
 Eklund, G., 576, 582, 583, 584, 585
 Eldred, E., 573-606; 573, 577, 578, 580, 581, 582, 597
 Eldridge, F., 119, 127
 Eliel, L. P., 353
 Elliott, D. H., 130

Elliott, D. N., 504
 Elliott, J. R., 357, 360, 365
 Elliott, R., 141
 Ellis, A., 210
 Ellman, S. J., 564
 Ellsworth, R., 363
 Elmquist, D., 408
 Elsdale, T. R., 75
 Emäs, S., 144, 145
 Emley, G., 552
 Emmelot, P., 40
 Emmers, R., 593
 Emonet-Denand, F., 575, 576, 578
 Enami, M., 517
 Encabo, H., 547
 Enders, A. C., 354
 Endo, M., 408, 411
 Endroczi, E., 337
 Engberg, I., 593
 Engel, K., 127
 Englehardt, E. M., 245
 Englesberg, E., 36, 38
 Engstrom, G., 365
 Entine, G., 450
 Entman, M. L., 277
 Epstein, F. H., 42
 Epstein, L. B., 221
 Epstein, R. M., 128
 Epstein, W., 36, 38
 Erämaa, E., 158
 Erb, R. E., 379
 Erspamer, V., 103
 Erulkar, S. D., 444, 496, 500
 Essig, A., 25
 Estergreen, V. L., 379
 Estes, E. H., 277
 Etsten, B. E., 116
 Evans, E. F., 444, 445, 446, 447, 476, 501
 Everts, E. V., 549, 560, 561, 589
 Evered, D. F., 23
 Everett, J. W., 333, 382
 Everett, N. B., 220
 Ewen, A. H., 394
 Eyzaguirre, C., 235, 573, 586

F

Faber, J. J., 288
 Fabian, M., 461, 467
 Facey, F. L., 234
 Fadiga, E., 561
 Fagerlund, U. H. M., 99
 Fairbairn, D., 91, 92
 Fairchild, H. M., 242
 Fairchild, M. D., 555
 Falchuk, K. H., 132
 Falck, B., 231, 234, 237
 Falconi, G., 319
 Falsetti, H. L., 116
 Familiar, R. G., 234
 Fang, M., 354, 356
 Fantl, P., 360
 Farese, R. V., 342
 Farhi, L. E., 123, 133
 Farquhar, M. G., 25, 28, 40, 78, 181, 418, 420
 Farrar, J. E., Jr., 141-68;
 Farrehi, C., 281
 Fatt, P., 406
 Favale, E., 500
 Fawzi, M., 98
 Federighi, G., 272
 Feher, O., 446, 447
 Fehr, H.-U., 574
 Feigl, E., 229
 Feigl, E. O., 228
 Feinmesser, M., 497, 503
 Feinstein, M., 342
 Feisal, K. A., 268
 Felber, J. P., 30
 Feldacker, B., 389
 Feldberg, W., 154
 Feldman, M., 217, 218
 Fell, C., 234
 Fell, H. B., 359
 Fenichel, I. R., 26
 Fenn, W. O., 13
 Fenton, B. H., 142, 143, 144
 Ferguson, D., 236, 237
 Fermi, L., 15
 Fermoso, J. D., 234
 Fernández, C., 491
 Fernandez-Ballesteros, M. L., 600
 Fernandez de Molina, A., 563
 Fernández Otero, P., 35
 Ferrari, E., 600, 601
 Ferretti, R., 120
 Fex, J., 503
 Fichtel, K., 232
 Fiel, N. J., 316, 319
 Field, C. C., 247
 Field, M., 30
 Fikova, E., 502
 Filler, J., 123
 Fillion, G., 306
 Fincham, W. F., 131
 Finck, A., 505
 Finkelstein, D., 432, 457, 460, 461
 Finkelstein, J. D., 104, 365
 Finstad, J. K., 217
 Fiore-Donati, L., 217
 Fisch, C., 302
 Fisch, U., 498
 Fischer, J., 35, 365
 Fischer, J. E., 155
 Fischer, T. V., 388

Fisher, F. M., 98
 Fisher, G. L., 499
 Fisher, J. M., 158
 Fisher, R. F., 459
 Fishman, A. P., 120, 129
 FitzHugh, R., 460
 Flanagan, B., 361, 362
 Flanagan, J. L., 507
 Flandrois, R., 131
 Flath, R. E., 119
 Flavin, M., 37
 Flechheimer, N. S., 393
 Fleckenstein, A., 292, 298
 Fleming, W. R., 183
 Flemister, L. J., 170, 174, 175
 Fleshler, B., 141, 146, 152
 Fletcher, G., 133
 Flexner, J. B., 550, 551
 Flexner, L. B., 550, 551
 Flinn, M., 492
 Flock, A., 489
 Florey, H. W., 198, 199
 Florkin, M., 100, 169, 172
 Florsheim, W. H., 321
 Foà, P. P., 33
 Fok, Y. B., 402
 Folkow, B., 229, 237, 239
 Fontaine, Y. A., 321
 Forbes, A., 555
 Forbes, T. R., 392
 Forchielli, E., 384
 Forscher, B. K., 360, 361
 Förster, H., 38
 Forster, R. E., 125, 127
 Forster, R. P., 170, 171, 176
 Forster, S., 580
 Forstner, G., 30
 Forte, J. G., 49, 78
 Fortier, C., 324
 Foster, G. V., 356
 Fourtes, M. G. F., 464
 Fowler, K. T., 121
 Fowler, N. O., 121
 Fox, F., 51
 Fox, M., 23
 Fox, S. S., 557
 Fraley, E., 200
 Frank, H., 236
 Frank, K., 413, 558
 Frank, M. J., 122
 Franke, F. E., 232
 Frankel, A. I., 331
 Frankel, H. L., 231
 Frankenhaeuser, B., 403
 Frankland, D. M., 359
 Franklin, D. L., 288
 Franklin, H., 141
 Fraschini, F., 336, 339

- Fraser, F. C., 491
 Fraser, R., 355
 Fratanoti, J. C., 41
 Frayser, R., 126
 Frazier, D. T., 229
 Frechkop, S., 392
 Fredga, K., 390
 Freedman, D. X., 554
 Freedman, S., 131
 Freeman, S., 360
 French, J. E., 198
 French, R. S., 361, 362
 Fretwell, L. K., 127
 Freyschuss, U., 126, 236
 Friedman, J., 356, 357
 Friedman, J. J., 243, 244
 Friedman, M., 209
 Friedman, R. C., 316
 Frings, H., 485
 Frishkopf, L. S., 489, 498
 Fritts, H. W., 584, 585
 Fritz, G. R., 33
 Fromm, G. H., 556
 Frommer, J. C., 132
 Frommer, P. L., 284
 Frost, O. L., 379
 Fry, D. L., 279, 280
 Fryö, B., 144, 145
 Fujimoto, D., 103
 Fujino, M., 330
 Fujita, M., 43, 44
 Fujita, S., 504
 Fujita, T., 353
 Fujita, Y., 558
 Fuller, D. R. J., 430, 431, 437
 Fuortes, M. G. F., 413, 518, 520, 521, 522, 523, 524, 525, 526, 527, 532, 536, 537
 Furman, G. G., 498
 Furukawa, A., 404
 Furukawa, T., 404
 Fuster, J., 460
 Fuxe, K., 237, 276, 304, 306
- G
- Gaal, P., 272
 Gaal, P. G., 262
 Gabé, M., 183
 Gabuzda, G. J., 141, 146, 152
 Gage, P. W., 412
 Galambos, R., 441, 476, 500, 504, 549
 Galante, J. G., 236
 Gale, M. M., 214
 Galin, D., 502
 Galindo, A., 231
 Gallagher, J. P., 273, 274
- Gallego, A., 460, 462
 Galsworthy, P. R., 43
 Gamble, R. L., 45, 46
 Garb, A. E., 162
 Garber, B., 74
 Garcia, A. M., 320
 Garcia, E., 503
 Garcia Austt, E., 544
 Garcia Ramos, J., 501
 Gardner, J., 190
 Gardner-Medwin, A. R., 519
 Garey, L. J., 458
 Garner, W. R., 437
 Garroute, B., 562
 Gasanov, U. G., 501
 Gass, G. H., 162
 Gassel, M. M., 579, 580
 Gastaut, H., 560
 Gaze, R. M., 59-86; 61, 62, 63, 71
 Gazzaniga, M. S., 552
 Gebber, G. L., 232
 Gebbie, T., 133
 Geber, G. B., 232
 Geber, W. F., 242, 247
 Gebhardt, W., 284
 Geivers, H., 272, 290
 Gelfand, R., 132
 Geller, E., 554
 Gellhorn, E., 229
 Gemzell, C., 374
 Gensini, G. G., 276
 Genuth, S., 343
 Geoffrey, W. G., 34
 Georg, J., 117
 Georg, R. H., 35
 Gerard, R. W., 428, 551, 555
 Gerber, C. J., 27
 Gerhardt, H.-J., 496, 498, 505
 Gernandt, B. E., 595
 Gerneke, W. H., 394
 Gero, J., 233
 Gerola, A., 229
 Gerová, M., 233
 Gerschenfeld, H. M., 405, 417
 Gershuni, G. V., 501, 506
 Gerstein, G. L., 443, 444, 445, 450, 501, 548, 549
 Geschwind, N., 429
 Gholson, R. K., 103
 Giachetti, A., 306
 Gibbs, R., 42
 Gibson, W. R., 331
 Gilbert, D. J., 401, 402
 Gilbert, R., 127
 Gilby, A. R., 96, 98
 Gill, J. R., Jr., 362
 Gill, P. K., 585
 Gillary, H. L., 518
 Gillespie, I. E., 150, 156
- Gillespie, J. S., 237
 Gillet, E., 548
 Gilliam, J., 305
 Gillis, C. N., 305
 Gilman, S., 577
 Gilmore, J. P., 281
 Gilmore, L. O., 393
 Gilsdorf, R. B., 163
 Ginsborg, B. L., 420
 Ginzburg, B. Z., 29
 Girdwood, R. H., 158
 Girodano, C., 363
 Glackin, R., 505
 Glanagan, B., 361
 Glaser, G. H., 577, 596, 597
 Glass, G. B. J., 160
 Glaviano, V. V., 234
 Glebovskii, V. D., 585, 586
 Glick, G., 230
 Glick, S. M., 314, 315, 316
 Glimcher, M. J., 359
 Glitsch, H. G., 296
 Globerson, A., 217, 218
 Glock, G. E., 361
 Glynn, I. M., 42
 Godart, S. J., 214
 Goerke, J., 26, 27
 Goerke, R. J., 27
 Goerner, P., 489
 Goesky, C. A., 22
 Gohmann, E. J., 49
 Goldberg, E., 92
 Goldberg, J. M., 432, 442, 443, 444, 449, 450, 500, 503, 548
 Goldberg, M. F., 354
 Goldberger, M. E., 591
 Goldhaber, M. J., 359
 Goldhaber, P., 356, 357, 359, 360, 362
 Goldman, D. E., 297, 403
 Goldman, H. S., 120
 Goldring, S., 556, 557
 Goldstein, D. A., 192
 Goldstein, D. J., 376, 377
 Goldstein, M. H., 489
 Goldstone, M., 555
 Gomes, W. R., 379
 Gómez, D. M., 123, 247
 Gomez, J., 245
 Gomez-Povina, O. A., 306
 Gömöri, Z., 276
 Gonzales, F., 105
 Gonzalez, M., 35
 Good, R. A., 197, 216, 217
 Goodfellow, S., 393
 Goodman, A. H., 291
 Goodson, J. E., 521, 525

- Gordon, A. H., 353
 Gordon, G., 432, 437, 439
 Gordon, J., 389
 Gorlin, R., 247, 274
 Gorski, J., 358, 382, 384, 389
 Gorten, R. J., 228
 Gosselin, R. E., 115, 244
 Gossweiler, N., 247
 Gottlieb, G., 488
 Goudsmith, E., 90
 Gould, E., 492
 Gourevitch, G., 505
 Gowans, J. L., 220
 Graber, J. W., 331
 Gracheva, M. S., 586
 Graettinger, J. S., 284
 Graff, D. J., 95
 Graffin, A. L., 364
 Grafstein, B., 63
 Graham, C. H., 428, 538
 Graham, E. C., 161
 Graham, R. M., 158
 Graig, R., 169, 185
 Gramer, I., 363, 364
 Granata, L., 228
 Grant, R., 413, 414, 451, 518, 573, 575, 576
 Graszynski, K., 183
 Gray, J. A. B., 430, 431, 437
 Gray, L. A., 380
 Greaves, M. E., 76, 77, 79
 Green, D. E., 45
 Green, D. G., 413, 414
 Green, H. D., 234
 Green, J. A., 379
 Green, J. D., 558
 Green, J. W., 178, 179, 180
 Green, M., 133
 Greenberg, D. M., 12
 Greenblatt, R. B., 333
 Greenfield, J. C., Jr., 239, 279, 280
 Greenspan, K., 302
 Greenwood, D. D., 441, 442, 443, 447, 450, 499, 500, 548
 Greep, R. O., 351, 381, 382
 Greer, M. A., 321, 322, 340
 Gregg, D. E., 265, 267, 272
 Gregg, J. H., 75, 76
 Gregory, R. A., 146, 148
 Gress, D. E., 228
 Gribetz, D., 363
 Gribetz, I., 580
 Gries, C., 358
 Griffin, D. R., 492
 Griffith, E. M., 143, 144
 Griffith, F. D., 360, 361
 Griffith, L. S. C., 233
 Griggs, D. M., 279, 280
 Grinnell, A. D., 421, 492, 493
 Groom, A. C., 234
 Gropp, A., 393
 Gross, J., 359
 Grossman, M. I., 144, 146, 147, 148, 149, 150, 152, 156, 157
 Grotte, G., 200, 210
 Grubel, G., 503
 Grundfest, H., 403, 404, 405
 Grusnick, D., 236
 Grüsser, O.-J., 432, 457, 460, 461
 Grüsser-Cornehlis, U., 457, 460, 461
 Gryboski, W. A., 143
 Guazzy, M., 234
 Gudmundson, T. V., 356
 Guggenheim, K., 5
 Guggenheim, M., 104
 Guha, S. K., 290
 Guidotti, G., 351
 Guilbault, P., 294
 Guillemin, R., 313-48; 321, 322, 323, 324, 326, 327, 328, 330, 332, 338, 345
 Guinot-Dumortier, D., 486
 Gunn, C. G., 227, 234
 Gupta, P. V., 185
 Gurtler, R., 247
 Gussin, A. E., 98
 Gustafson, T., 80
 Guth, P. H., 164
 Guttman, N., 449, 506, 507
 Guttmann, L., 231
 Guyatt, A. R., 126
 Guyton, A. C., 201, 226, 242
 Guz, A., 122, 131, 279, 287
 Guzman, C. A., 236
 Guzman, S. V., 271
- H
- Haab, P., 126
 Haas, H. G., 296
 Hack, M. H., 98, 505, 506
 Hackel, D. B., 277
 Hackman, R. H., 102
 Hagbarth, K.-E., 581
 Häggendal, E., 243, 248
 Hagins, W. A., 537
 Hagiwara, S., 404
 Hahn, H., 507
 Halden, M., 558
 Haines, T. H., 106
 Halas, E., 578
 Halbfas, E., 495
 Haldane, J. B. S., 13
 Hallick, P., 555
 Halkerston, I. D. K., 342
 Hall, G. H., 115
 Hall, J. G., 221
 Hall, J. L., 499
 Hall, P., 164
 Hall, P. F., 380, 384
 Hamerton, J. L., 392
 Hamilton, L. H., 132
 Hamilton, R. W., Jr., 119, 133
 Hamilton, T. H., 389
 Hamilton, W. F., 214
 Hamlin, R. L., 281
 Hammen, C. S., 92
 Hammer, W., 306
 Hammond, E. L., 467
 Han, J., 303
 Hancox, N., 357
 Handler, P., 544
 Hannover, R., 47
 Hansel, W., 380, 385
 Hansen, J. G., 106
 Hansen, L. M., 330
 Hanson, J. S., 116, 134
 Hanson, K. M., 243, 246
 Hantström, B., 517, 518
 Hao, J., 163
 Hara, H. H., 225
 Hardin, W. B., 560, 561
 Hardy, P. M., 146
 Hare, D., 35
 Hargis, G. K., 355
 Hargitay, B., 189, 192
 Harkins, H. N., 151, 152
 Harms, W. S., 204, 216
 Harold, F. M., 30
 Harold, R. L., 30
 Harper, A. A., 142
 Harpur, R. P., 92
 Harrington, W. F., 103
 Harris, E. D., Jr., 362
 Harris, E. J., 27, 45, 46, 47
 Harris, F., 439
 Harris, G. G., 489
 Harris, J. B., 49
 Harris, P. D., 240
 Harris, T. W., 154
 Harrison, D. C., 234
 Harrison, F. M., 170, 171, 172, 173, 174, 176, 177, 179
 Harrison, H. C., 360, 363, 365
 Harrison, H. E., 360, 362, 363, 365
 Harrison, J. M., 499
 Harrison, M., 355
 Harrison, M. J., 504
 Harsch, M., 178, 179, 180
 Hartline, H. K., 457, 466, 513, 516, 523, 524, 527,

- 531, 532, 535, 537, 538
 Hartman, W. J., 104
 Harumi, K., 287
 Hashimoto, H., 242
 Haslag, W. M., 236
 Haslewood, G. A. D., 98
 Hasse, J., 575, 576
 Hassler, R., 471, 601
 Hatcher, J. D., 242
 Hatchett, B. F., 206
 Hauck, G., 284
 Haurowitz, F., 23
 Hauser, G., 29
 Haverback, B. J., 154, 155
 Hawker, C. D., 350, 351, 352, 357, 358, 361
 Hawrylko, J., 353
 Hay, M. F., 385
 Hayman, S., 38
 Hayward, J. N., 555
 Hazlewood, C. F., 34
 Hazzledine, J. L., 123, 235
 Heap, R. B., 385, 388
 Hearfield, D. A. H., 95
 Heath, T., 206
 Heathcote, J. G., 159
 Hebb, C., 122
 Hecht, S., 533, 535, 536
 Hechter, O., 342
 Heck, H., 392
 Heckmann, K., 22
 Hedley-Whyte, J., 133
 Heerd, E., 129
 Hein, A., 563
 Heinrich, W., 575, 576
 Heinz, E., 21-58
 Hekkelman, J. W., 361
 Held, R., 563
 Hellems, H. K., 234
 Heller, M., 361
 Hellman, D. E., 363, 364
 Hemmingsen, E. A., 127
 Hempling, H. G., 24, 35, 48, 49
 Hems, D. A., 42
 Henatsch, E. M., 596, 597
 Henatsch, H. D., 576, 577, 596, 597
 Henderson, J. A. M., 124
 Henderson, L. M., 103
 Hendricks, D. M., 379
 Hendrix, C. E., 560
 Hendry, E. B., 211
 Henneman, E., 582
 Henneman, P. H., 362
 Henry, S. M., 106
 Hensel, H., 275
 Henson, C. O., 476
 Henze, K. G., 356, 357
 Henze, M., 105
 Herbert, V., 158
 Herbertson, B. M., 205
 Hering, E., 428
 Herman-Erlee, M. P. M., 361
 Hermier, C., 338
 Hernandez, T., 364
 Hernández-Peón, R., 558
 Herrera, F. C., 34
 Herrlich, P., 103
 Herschler, M. S., 393
 Herschler, R. C., 379
 Hershberger, L. G., 330
 Hertig, D. H., 161
 Herting, D. C., 363
 Hertzman, A. B., 236
 Herz, A., 460
 Herzberg, R. M., 247, 271
 Hess, A., 419, 420, 587
 Hess, R., 90
 Heymans, C., 129, 234
 Hiatt, H. H., 363
 Hibbard, E., 60, 61
 Hiemstra, H. R., 238
 Higgins, D. C., 577, 596, 597
 Hilberg, C., 39
 Hilchey, J. D., 105
 Hill, A. V., 14
 Hill, R. M., 457, 458, 462, 463, 464
 Hilliard, J., 337, 382, 383
 Hilton, S. M., 228, 229
 Himwich, W. A., 226
 Hind, J. E., 442, 443, 444, 449, 500
 Hinke, J. A. M., 239
 Hirche, H., 259, 260, 261, 262
 Hiroi, M., 336
 Hirsch, P. F., 349, 352, 353, 356, 357, 363, 364
 Hirschowitz, B. I., 39, 141, 142
 Hirst, P., 363
 Hjelle, L. A., 552
 Hnik, P., 582, 583
 Ho, R. J., 34
 Hodes, R., 580
 Hodgkin, A. L., 401, 402, 464, 527, 532
 Hodgson, E., 98
 Hoedt-Rasmussen, K., 248
 Hoeft, L. O., 494
 Höfer, M., 30
 Hofert, J., 358
 Hoffman, B. F., 284, 297, 300, 301, 303
 Hoffman, J. F., 21, 192
 Hoffman, J. I. E., 122, 279, 287
 Hoffman, R. N., 163
 Hoffmeister, H., 100
 Hökfelt, B., 391
 Hokin, L. E., 40, 41, 42, 43
 Hokin, M. R., 42
 Holden, J. T., 38, 100
 Holgate, V., 545
 Holgersen, L. O., 246
 Holland, J., 551
 Holland, R. A. B., 127
 Hollander, F., 160
 Hollenberg, M., 247
 Holley, H. S., 124
 Holloszy, J. O., 34
 Holmes, J. C., 121
 Holmes, W. N., 174, 177
 Holmgren, A., 125
 Holt, J. P., 284
 Holter, H., 181
 Holtfreter, J., 74
 Holton, P., 153, 233
 Holz, E., 459, 496
 Homma, S., 234
 Honda, K., 234
 Hongo, T., 578, 591, 592, 593, 601
 Honig, G. R., 358
 Honrubia, V., 497
 Hood, W. B., 265
 Hook, J. B., 39
 Hoopes, J. J., 547
 Hopkins, T. F., 338
 Hoppin, F. G., Jr., 126
 Horeman, H. W., 467
 Hori, Y., 552
 Horn, G., 476
 Horowicz, P., 27
 Horowitz, R. E., 234
 Horowitz, S. B., 26
 Horridge, G. A., 487
 Horsfield, K., 117
 Horwith, M., 363, 364
 Hoshiko, T., 26
 Hosie, R. J. A., 40
 Hosko, M. J., Jr., 238
 Hotta, Y., 404
 House, C. R., 192
 Housepian, E. M., 559
 Houston, B. A., 354, 365, 366
 Houx, N. W. H., 96
 Howard, P., 123, 124
 Howe, A., 128, 235
 Howland, B. E., 386
 Howse, P. E., 486
 Hoyer, H., 197, 205
 Hoyle, R. J., 96
 Hubbard, J. I., 407, 411, 412
 Hubbard, R., 538
 Hubel, D. H., 65, 444, 447, 452, 458, 460, 462, 469, 470, 471, 472, 473, 474, 475, 476
 Huber, F., 488
 Hubner, H. J., 36
 Hudson, B. V., 131
 Huf, E. D., 35

Hughes, A., 69, 70
 Hulton, P., 514
 Hultquist, D. E., 45
 Hummason, F. A., 394
 Humphrey, G. F., 92
 Hunsperger, R. W., 430,
 431, 432, 563
 Hunt, C. C., 420
 Hunt, H. B., 559
 Huston, M. J., 170, 173,
 174
 Huvos, A., 228
 Huxley, A. F., 403
 Hyatt, R. E., 119
 Hyde, J. E., 341
 Hyde, R. W., 126
 Hyman, C., 206, 212, 225,
 234, 235, 243
 Hytönen, Y., 505

I

Ibayashi, H., 353
 Ichil, S., 384
 Idler, D. R., 99
 Igarashi, H., 96
 Igarashi, M., 339
 Iggo, A., 429, 430,
 577
 Iio, M., 127
 Iljitschew, W. D., 491
 Illis, L., 564
 Ing, T., 236
 Ingelfinger, F. J., 34
 Inskeep, E. K., 380,
 386
 Inui, Y., 36
 Ip, M. C., 574, 576
 Iriki, M., 230
 Irisawa, A., 302
 Irisawa, H., 302
 Iriuchijima, J., 233
 Irreverre, F., 104
 Irvine, G., 276
 Irvine, W. J., 159
 Irving, R., 499
 Irwin, J. V., 131
 Irwin, M. R., 394
 Ishida, Y., 318, 338,
 339
 Ishii, K., 234
 Ishikawa, K., 581
 Ishikawa, T., 393
 Ismail, A. H., 134
 Isselbacher, K. J., 23
 Ito, S., 47
 Ito, Y., 363
 Iurato, S., 494
 Iversen, L. C., 305
 Ivy, A. C., 144

J

Jabbur, S. J., 439
 Jackson, H., 374
 Jackson, R. T., 232
 Jackson, W. D., 225

Jacob, J., 306
 Jacob, R., 280, 281, 283,
 284
 Jacobs, E., 363
 Jacobs, G. H., 452, 454,
 455, 464
 Jacobson, E. D., 152
 Jacobson, J. L., 595
 Jacobson, M., 61, 62, 63,
 71
 Jacquemin, Ch., 131
 Jacques, P., 359
 Jageneau, A. H. M., 272,
 279, 280
 Jager, G. N., 226
 James, D. W., 78
 James, T. N., 228, 278
 Jamieson, D., 133
 Janczewska, H., 235
 Jankovic, B. D., 216
 Jankowska, E., 588, 591,
 592, 593
 Janowitz, H. D., 142
 Jansen, C. R., 220
 Jansen, J. K. S., 577, 578,
 581, 582
 Jaquez, J. A., 23, 24
 Jaramillo, C. V., 266
 Jarnefelt, J., 41
 Jarrett, A. S., 117
 Jarvik, M. E., 551
 Jarvis, C., 376
 Jasper, H., 557, 562,
 590
 Jaworski, Z. F., 362
 Jeanrenaud, B., 34
 Jeffress, L. A., 449,
 506
 Jeffries, G. H., 159, 161
 Jelinek, B., 100
 Jenny, N. A., 100
 Jensen, E. V., 389
 Jervell, J., 33
 Jessen, C., 230
 Jiang, N. S., 329, 339
 Jinnai, D., 601
 Jobin, M., 324
 Joels, N., 128, 229
 Johansson, B., 229, 232,
 240, 242, 243
 John, E. R., 560
 Johnson, D. C., 336,
 386
 Johnson, P. C., 240, 242,
 246
 Johnson, R. H., 231, 547
 Johnson, R. L., Jr., 126
 Johnson, R. P., 118
 Johnson, S. R., 174,
 177
 Johnson, T., 551
 Johnston, C. C., Jr., 361,
 362
 Johnston, D., 150
 Johnstone, B. M., 497
 Johnstone, R. M., 24, 29,
 30, 32, 51

Jones, A. B., 33, 34
 Jones, A. E., 454, 455,
 464
 Jones, D. S., 146, 231
 Jones, K. W., 75
 Jones, M., 153, 271
 Jones, N. L., 127
 Jones, R. D., 242
 Jones, R. S., 149
 Jones, W. D., 133
 Jordan, J. P., 133
 Jordon, A. L., 104
 Joseph, R. L., 107
 Josse, J., 103
 Jost, A., 394
 Jouvett, M., 558
 Judah, J. D., 42, 45, 46
 Juhász-Nagy, A., 228, 259,
 260, 261
 Juhlin, L., 200
 Jukes, M. G. M., 432, 437,
 439
 Jungblut, P. W., 389
 Jutisz, M., 325, 328, 338,
 386

K

Kaada, B. R., 598
 Kaelber, W. W., 600
 Kahn, N., 129, 228
 Kaiser, G. A., 228, 265,
 266, 269
 Kaiser, W., 38
 Kakinuma, K., 48
 Kalkoff, W. J., 234
 Kaltenbach, C. C., 381
 Kamat, V. B., 40
 Kamemoto, F. I., 172, 177,
 182, 183, 184, 190
 Kamen, M. D., 15
 Kamikawa, K., 552
 Kamp, M., 246
 Kanagawa, H., 393
 Kanazawa, T., 43
 Kandel, E. R., 404, 416,
 544, 558
 Kaneko, K., 124, 125
 Kaneko, Y., 239
 Kano, M., 578
 Kantor, T. G., 162
 Kapadea, G. G., 100
 Kaplanis, J. N., 98, 99,
 100
 Kaplinsky, E., 287
 Karasawa, T., 127
 Karczewski, W., 117
 Karlin, L. J., 199
 Karlson, P., 100, 102,
 103
 Karlsson, U., 420
 Kasbekar, D. K., 39
 Kashemsant, U., 236
 Kasting, A. J., 338
 Kato, K. N., 177,
 190
 Kato, M., 580

- Katsuki, Y., 441, 444, 445,
 447, 486, 499, 501, 503
 Kattus, A. A., 262
 Katz, A. M., 162
 Katz, B., 407, 408, 409,
 410, 411, 415
 Katz, L. N., 210
 Katz, R. L., 228, 264
 Katz, S., 131, 319
 Katz, S. H., 319, 320
 Katzen, H. M., 68
 Kaufman, E. J., 359
 Kaufmann, R., 292
 Kavalier, F., 292,
 293
 Kawata, K., 393
 Kay, K. E., 551
 Kay, R. H., 133
 Kayaalp, S. O., 232
 Kayama, M., 96
 Kaye, G. I., 25, 28,
 40
 Kayser, K. L., 290
 Kearns, K. L., 133
 Keene, M. F. L., 586
 Keilin, D., 113
 Keiser, H. R., 362
 Keister, S. M., 172, 182,
 184
 Keller, A., 32
 Keller, A. D., 235
 Keller, K., 393
 Keller, P., 331
 Keller, R., 182, 184
 Kellerth, J.-O., 413, 414,
 576
 Kelley, J. S., 408
 Kelly, G., 363
 Kelly, K. A., 151, 152
 Kelman, G. R., 133,
 289
 Kendall, J. W., 340
 Kendrick, J. E., 230
 Kennedy, C., 1, 2
 Kennedy, D., 513, 527,
 533
 Kennedy, E. P., 50, 51
 Kennedy, J. M., 162
 Kennedy, R., 29
 Kennedy, T. T., 561,
 562
 Kenner, G. W., 146
 Kent, W. T., 206
 Kepes, A., 37
 Keplinger, J. E., 588
 Kern, R., 296
 Kerr, F., 230
 Kerr, R. M., 163
 Kertkut, G. A., 101
 Keston, A. S., 50
 Kettel, L. J., 133
 Keul, J., 267, 268
 Keutmann, H. T., 357,
 365
 Kewenter, J., 247
 Keyes, W. M., 357
 Keynes, R. D., 26, 27
 Khoo, E. C., 358
 Khouri, E. M., 265, 267,
 268, 272
 Kiang, N. Y., 440, 441, 443,
 444, 445, 450, 499, 500,
 501, 548, 549
 Kidd, C., 432
 Kidd, G. L., 575, 576
 Kidder, G. W., 25, 49
 Kikuchi, R., 522, 526,
 529
 Kilby, B. A., 95
 Kilpatrick, R., 382, 384
 Kim, K. S., 212
 Kim, Y. S., 163
 Kimberg, D. V., 365
 Kimmich, G. A., 35
 Kines, H., 284
 King, J. M., 392
 King, R., 551
 King, R. J. B., 389
 King, T. K. C., 116
 Kinmonth, J. B., 207
 Kinnison, G. L., 130
 Kinoshita, J. H., 38
 Kinsella, J. E., 97
 Kipnis, D. M., 24, 31
 Kiracofe, G. H., 386
 Kirby, D. R. S., 376,
 377
 Kirchner, J. A., 586
 Kirkpekar, S. M., 237
 Kirschner, L. B., 169-96;
 170, 171, 176, 181, 183
 Kiseleski, W., 357, 360
 Kiselkova, E., 237
 Kitahara, S., 28
 Kitano, M., 248
 Kitteridge, J. S., 100
 Kivirikko, K. I., 362
 Kjellmer, I., 242, 243,
 246
 Klahr, S., 48
 Klee, M. R., 557
 Kleeman, C. R., 363
 Kleiber, M., 1-20; 1, 2, 5,
 6, 8, 9, 12, 13, 14, 18
 Klein, M. D., 247, 274
 Klein, R. M., 115
 Kleinfeld, M., 300
 Kleinheisterkamp, U., 283
 Kleinzeller, A., 29
 Kline, I. K., 210
 Klocke, F. J., 228, 266,
 269
 Klouda, M. A., 234
 Kmentova, V., 326
 Kmetec, E., 92
 Knapp, F. M., 226
 Knapp, H. D., 564
 Knight, E. J., 220
 Knight, J., 374
 Knobil, E., 316, 318,
 319
 Knotková, A., 29
 Knox, J. D. E., 158
 Kobayashi, T., 271
 Koch, H. J., 183
 Koch-Weser, J., 283,
 291
 Koestner, A., 354
 Kohapzu, S., 150
 Kohler, H., 356, 357, 362,
 363
 Kolber, A. R., 51
 Kolin, A., 262, 272
 Kollias, J., 133
 Kolmen, S. N., 213, 215
 Komarov, S. A., 145
 König, W. E., 586
 Konishi, M., 488, 489
 Konishi, T., 498
 Kontos, H. A., 242,
 245
 Konturek, S., 146, 150, 151,
 154
 Koritz, S. B., 380, 384
 Kornacker, K., 67
 Kornellussen, H. K., 575
 Korner, P. I., 233, 235
 Kornhuber, H. H., 559
 Kory, R. C., 132
 Kosaka, M., 230
 Kosan, R. L., 239
 Kosary, I., 577
 Kosowsky, B. D., 303
 Kot, P. A., 235
 Kotyk, A., 30
 Kouliacher, L., 392
 Kountz, S., 208
 Kovacic, N., 383
 Kovacs, S., 325
 Kovalev, G. V., 229
 Kowalewski, K., 358
 Kowarski, S., 365
 Koyano, H., 235
 Kozak, W., 452, 456, 459,
 468, 474
 Kozbur, X., 164
 Kragt, C. L., 388
 Krainin, J. M., 538, 539
 Krainitz, L., 356
 Kramer, R., 44
 Kramer, R. F., 548
 Krane, S. M., 358
 Krasney, J. A., 228
 Kraupp, O., 263
 Krause, D. M., 324
 Krause, H., 298
 Krauthamer, G. M., 600,
 601
 Kravitz, E. A., 101
 Krebs, H., 6, 13
 Krech, D., 553, 554
 Kritzier, H., 488
 Krnjec, K., 408
 Kröger, W., 29
 Kroman, H., 216
 Kronfeld, D. S., 353,
 355
 Krook, L., 358
 Kruger, L., 433
 Krulich, L., 316, 317, 318,
 319, 320

- Krzywanek, H. J., 230
 Kübler, W., 259, 260, 264
 Kubota, K., 421, 422, 601
 Kuchler, G., 33
 Kudo, F., 595
 Kuenzig, M. C., 119
 Kuffler, S. W., 101, 457, 460, 461, 465
 Kugler, O. E., 183
 Kuhn, W., 189, 192
 Kuiper, J. W., 538
 Kumada, M., 233
 Kumar, M. A., 356
 Kümmel, G., 172
 Kunin, A. S., 358
 Kuno, M., 415, 420, 585
 Kupfer, C., 587
 Kuroshima, A., 318, 338, 339
 Kusano, K., 403
 Kuskawa, R., 288
 Kuwabara, M., 516
 Kuypers, H. G. J. M., 587, 588, 590, 592, 594
- L
- LaBella, F. S., 325
 Labra, I., 343
 Ladeira, B. A., 89
 Ladpli, R., 588
 LaForce, F. M., 234
 LaGrutta, V., 503
 Laidlaw, J. C., 374
 Lal, S., 133, 430, 431, 432
 Lall, A. B., 538
 Lamb, T. W., 132
 Lambert, E. H., 595
 Lambertsen, C. J., 131, 132
 Lambremont, E. N., 96
 Lameyr, L. D. F., 50
 Lamkin, W. M., 330
 Lammerant, J., 306
 Lampkin, G. H., 393
 Lan, S. H., 303
 Land, E. H., 456
 Landau, W. M., 555, 556, 580, 590, 591
 Lane, C. E., 183
 Lane, L. L., 394
 Lang, T. G., 489
 Lange, D., 530
 Lange, F. A., 11
 Lange, G., 299
 Langendorf, H., 47
 Langer, G. A., 292, 296
 Langford, T. L., 506
 Langston, J. B., 226, 229, 232
 Lankester, E. R., 517
 Lapiere, C. M., 359
 Laporte, Y., 575, 576
 Larralde, J., 23, 25
 Larson, C. P., Jr., 125
 Larsson, L. S., 573
 Lashley, K. S., 473
 Laslie, M., 201, 205
 Lassen, N. A., 117, 246, 248
 Lassen, U. V., 48
 Laudano, O. M., 156
 Laurell, H., 245, 246
 Laursen, A. M., 561, 563, 598; see Mosfeldt Laursen, A.
 Lauvergne, J.-J., 391
 Lavender, A. R., 363, 364
 Laver, M. B., 133
 Laverack, M. S., 169
 Lavoisier, A., 5
 Law, L. W., 218, 219
 Lawrence, D. G., 588, 590, 592, 594
 Lawrence, N., 324
 Laws, D., 169, 181
 Lawson, W. H., Jr., 127
 Lawton, I. E., 330, 333
 Lazuko, N. N., 504
 Lazzara, R., 301
 Leach, J. K., 284
 Leader, H. S., 433, 436
 Leaf, A., 28, 32, 34, 35, 50
 Learoyd, B. M., 239
 Leb, D., 26
 Le Bars, R., 122
 Lebedinskii, M. M., 501
 Lebovitz, H. E., 343
 Lebric, S. J., 213
 Ledsome, J. R., 235
 Lee, J. B., 354
 Lee, J. S., 212
 Lee, K. D., 128
 Lee, P., 98
 Lee, P. R., 212
 Lee, Y. C. P., 295
 Leeds, S. E., 209
 Lefer, A. M., 234
 LeFevre, M. E., 49
 Leglise, P.-C., 382, 388
 Legoux, J. P., 494
 Lehman, R. M., 595
 Lehninger, A. L., 12, 45, 46
 Leibbrandt, C. C., 503
 Leibhold, R. A., 104
 Leiman, A., 560
 Leitner, J. M., 231
 Lelkes, J., 325
 Lemaers, A., 272
 Lenfant, C., 127
 Lennerstrand, G., 575, 585, 586
 Lennox-Buchthal, M. A., 456
 Lentz, J. P., 74
 Leonard, A. S., 163
 Lerner, H. J., 147
 Lesage, A., 304, 306
 Lettvin, J. Y., 457, 460
 Lever, J. D., 276, 354
 Levey, R. H., 218, 219
 Levic, W. R., 457, 458, 459, 460, 462, 463, 464, 467, 468
 Levin, H. S., 126
 Levin, J. A., 232
 Levin, R., 34
 Levine, B. E., 119
 Levine, H. J., 265, 279, 280
 Levine, L., 351, 352, 354
 Levine, M., 24
 Levine, O. R., 120
 Levinsky, N. G., 363, 364
 Levinson, G. E., 122
 Levinson, J., 527
 Levison, W. H., 225
 Levitan, R., 34
 Levitt, M., 546
 Levy, A. M., 116
 Levy, M. N., 122, 228, 233, 235, 279, 281, 282
 Levy, R., 361
 Lewi, P., 285, 289
 Lewin, R. J., 226, 231
 Lewis, G. P., 245
 Lewis, R., 588
 Lewis, W. B., 331
 L'Heureux, M. V., 353, 360
 Li, C. H., 314
 Li, Choh-luh, 556
 Liang, M., 22
 Lichtenstein, N. S., 35
 Lichtneckert, S. J. A., 117
 Lieban, H., 240, 245
 Lieberman, R., 298
 Liebman, P. A., 450
 Liggett, M. S., 283
 Liley, A. W., 202, 408, 411
 Lillehei, C. W., 233
 Lillie, F. R., 393
 Lilly, J. C., 489
 Linares, C. A., 148
 Lindberg, O., 45
 Lindblom, U., 430, 431, 432
 Linde, L. M., 122
 Linden, R. J., 235, 281
 Lindgren, P., 233
 Lindley, B. D., 26
 Lindner, H. R., 214, 379
 Lindsley, D. B., 558
 Lindston, J., 391
 Linford, R. H., 152
 Linton, J. R., 138
 Linton, S. N., 107
 Lintz, E. M., 234
 Lipetz, L. E., 526

- Lipetz, L. E., 526
 Lipkin, M., 163
 Lipman, R., 281
 Lipmann, F., 90
 Lippold, O. C. J., 556, 557
 Lishajko, F., 305
 Lison, L., 189
 List, P. H., 104, 105
 Lister, J. W., 303
 Little, C., 170, 171, 172, 173, 174, 175, 177
 Littledyke, T., 356
 Litwin, J., 275
 Liu, C. N., 588, 592
 Liu, W.-K., 314
 Livy, F., 266, 269
 Llinas, R., 593, 594, 597
 Llosa, P(aloma). de la, 338
 Llosa, P(edro). de la, 328, 338
 Lloyd, B. B., 130, 132
 Lloyd, C. W., 333
 Lloyd, T. C., Jr., 122
 Lochner, W., 259, 260, 263, 268, 269, 295
 Lockwood, A. P. M., 170, 174, 177, 179
 Lodish, H., 48
 Loeb, C., 500
 Loeb, P. M., 390
 Loewe, U., 23
 Loewenstein, W. R., 47
 Löfving, B., 229, 239
 Logan, C. J. H., 146
 Long, J. P., 241
 Longobardo, G., 120
 Lopez, A., 283
 Lopez, E., 321
 Lopez-Majano, V., 122
 Lorraine, J. A., 375
 Lorenz, R. R., 238, 240, 242
 Lotz, W. E., 357, 360
 Lourenco, R. V., 129
 Love, W. D., 271, 274, 275
 Love, W. E., 518
 Low, R. J., 392
 Lowe, I. P., 106
 Lowe, M. E., 98
 Lowenstein, J., 247
 Lu, H., 299
 Luckhardt, A. B., 355
 Luebs, E. D., 273, 274
 Lugossi, L. A., 247
 Luisada, A. A., 288
 Lumsden, R. D., 89
 Lund, S., 594
 Lundberg, A., 577, 588, 589, 591, 592, 593, 594
 Lundgren, C. E. G., 117
 Lundgren, O., 234
 Lundholm, L., 239, 244
 Lundwall, J., 234
 Lutiges, M., 551
 Lux, H. D., 557
 Luxoro, M., 402
 Lynn, J. E., 380
 Lyon, M., 500, 504
 Lyons, H. A., 116, 117
 Lyons, W. R., 374
 M
 McCallum, W. C., 559
 McCandless, G. A., 502
 McCann, S. M., 316, 317, 318, 319, 320, 335, 337, 338, 339, 340, 345
 McCanon, D. M., 288
 McClaskey, E. B., 235
 McCloskey, D. I., 128, 243
 McClure, R. C., 388
 McClurkin, I. T., 40
 McCrostie, H. H., 203
 McCubbin, J. W., 239
 McCue, J. J. G., 492
 McCulloch, W. S., 457, 460, 546
 Mc Curdy, N. M., 563
 McDonald, M. F., 379
 McDonald, P. R., 531, 532
 McDonald, R. H., Jr., 265
 McGaugh, J., 551
 McGregor, W. G., 375
 Mach, E., 428, 466
 McHorse, T. S., 324
 McIlwain, H., 43
 McIlwain, J. T., 461, 462, 552
 McIntosh, A. J., 390
 MacIntosh, F. C., 408
 MacIntyre, I., 356, 563, 564
 McIntyre, O. R., 159
 MacIntyre, W. J., 247
 Machlin, L. J., 106
 Mackay, J. F. S., 282
 McKenna, D. H., 266, 269
 Mackenzie, I. L., 159
 McKenzie, J. M., 322
 Macklem, P. T., 116
 McLean, A. E. M., 45, 46
 McLean, F. C., 361, 362
 McLean, P., 361
 McLennan, H., 573
 MacLeod, D. F., 134
 McLeod, J. H., 538
 MacLeod, J. K., 146
 MacLeod, R. D. M., 235
 McMahon, P., 90, 92
 McManus, E. C., 162
 McManus, J. P. A., 153, 154
 McMasters, R. E., 598, 599
 McMullan, G. K., Jr., 247
 McMurtry, J. G., 555, 557, 559
 Macnamara, W. D., 122
 McNew, J. J., 563
 MacNichol, E. F., Jr., 438, 450, 451, 454, 456, 518, 521, 522, 523, 529, 536, 539
 MacPherson, L., 233
 Macrobbe, E. A. C., 48
 McShan, W. H., 333, 380
 Macy, J., Jr., 433, 436
 Maddox, Y. T., 115
 Madrell, S. H. P., 190
 Magladery, J. W., 588, 589
 Magni, F., 72, 547
 Mahan, C., 555
 Mahesh, V. B., 333
 Mahler, Y., 287
 Mahoney, M. P., 146
 Mahut, H., 546
 Maio, D. A., 133
 Maiwald, C., 267, 268
 Maizels, M., 26
 Makhin, V. M., 233
 Makhlof, G. M., 153, 154
 Makiuchi, M., 306
 Malakhovskaya, D. B., 596
 Maliukina, G. A., 488
 Mallet, B. L., 248
 Mallette, J. M., 74
 Malm, J. R., 129
 Maloney, J. E., 121
 Malouf, N., 392
 Maluf, N. S. R., 170, 182
 Mandelbrot, B., 548
 Manfredi, M., 500
 Mangili, G., 343
 Manion, C. V., 240
 Mann, T., 374
 Manni, E., 577, 596, 597
 Manning, J. W., 227, 229, 233
 Maqueo, M., 379
 Marchand, E. R., 582
 Marchese, V. T., 202
 Marchetti, G., 263, 268
 Marchiafava, P. L., 459, 464
 Marco, L. A., 602
 Maren, T. H., 496
 Marfey, P. S., 49
 Margolius, G., 505
 Maric, D. K., 333
 Marini, J., 270
 Mark, R. F., 72
 Markl, H., 486, 487
 Markowitz, H., 554
 Marks, W. B., 450
 Marlier, P., 488
 Marlow, J. R., 123

- Marnay, C., 363
 Marotta, S. F., 245
 Marsh, J. M., 380, 384
 Marsh, J. T., 502
 Marshall, E. K., Jr., 364
 Marshall, H. W., 237
 Marshall, W. H., 471, 551
 Marten, A. E., 506
 Mårtensson, A., 586, 587
 Martin, A. R., 401-26; 407, 408, 412, 419, 420
 Martin, A. W., 170, 171, 172, 173, 174, 176, 177, 179
 Martin, G. R., 360
 Martin, J. D., 226
 Martin, J. P., 600
 Martin, L., 389
 Martin-Esteve, J., 49
 Martinet, J., 381, 385, 386, 387
 Martini, L., 319, 336, 343, 375
 Martuscelli, J., 107
 Maruo, A., 526, 539
 Marusheva, A. M., 502
 Maruyama, N., 444
 Mascitti, T. A., 592, 594, 599, 600
 Masden, R. R., 245
 Maser, M. D., 103
 Mason, D. T., 245
 Mason, V. C., 106
 Masieu, G., 101, 102, 104
 Massopust, L. C., Jr., 502
 Masters, Y. F., 143
 Masterton, R. B., 448, 504
 Masuda, H., 379
 Mateev, D., 237
 Matsuda, K., 321, 322
 Matsushita, A., 578
 Matsuyama, E., 333
 Mattenheimer, H., 128
 Matthews, J., 30
 Matthews, P. B. C., 573, 574, 575, 576, 577, 581
 Maturana, H. R., 457, 460
 Matyushkin, D. P., 575, 587
 Mauck, H. P., Jr., 242, 245
 Mauléon, P., 394
 Mawe, R. C., 24
 Mawson, C. A., 7
 Maxwell, M. H., 363
 May, F., 90
 Mayer, G. P., 353, 355
 Mayer, J., 1
 Mayerson, H. S., 197, 201, 202, 207, 213, 214, 216
 Mchedlishvili, G. I., 231, 234, 237
 Mead, J., 116, 132
 Mead, J. F., 96
 Mecca, C. E., 360
 Mechanic, G. L., 359
 Medawar, P. B., 393
 Medcalfe, J., 133
 Medlowitz, M., 244
 Meeker, M. R., 164
 Meesmann, W., 284
 Megirian, D., 595
 Mehler, W. R., 598
 Mehman, B., 92
 Meier, M., 263
 Meier, R., 35, 359
 Meikle, T. H., Jr., 458
 Meites, J., 316, 319, 322, 323, 325, 327, 339
 Melampy, R. M., 379, 384, 385, 388, 389
 Melkumova, G. G., 494
 Mellander, S., 234
 Mellemsgaard, K., 117
 Melii, M., 33
 Mellman, W. J., 222
 Mello, N. K., 451, 550
 Melmon, K. L., 245
 Melville, M. M., 390
 Melzack, R., 438, 439, 545
 Mendel, L. B., 105
 Mendell, L. M., 438, 439, 544
 Menguy, R., 143, 151
 Menichini, G., 272
 Mercer, E. H., 78
 Mercker, H., 268
 Merlo, L., 263, 268
 Merola, L. O., 38
 Merrill, J. P., 363
 Merzhanova, G. K., 559
 Messer, J. V., 126
 Metcalf, D., 197
 Meurer, K. A., 230
 Meuser, P., 575
 Meves, H., 401, 402, 403
 Meyer, E. C., 288
 Meyer, F. R., 246
 Meyer, G. M., 100
 Meyer, K. K., 208
 Meyer, V., 316, 319
 Mich, W. E., 39
 Middleton, M. D., 151, 152
 Migicovsky, B. B., 357
 Mikaelian, D., 505
 Miledi, R. A., 408, 409, 410, 415
 Milburn, S. E., 237
 Milhaud, G., 358
 Milic-Emili, J., 121, 124, 125
 Millicchia, R., 526, 539
 Miller, A. J., 210
 Miller, A. M., 489
 Miller, D. M., 24
 Miller, G. A., 437
 Miller, J. D., 504, 505, 506
 Miller, J. F. A. P., 216, 217, 218
 Miller, J. P., 130, 132
 Miller, L. L., 142
 Miller, W. H., 515, 516, 517, 527
 Mills, C. J., 272
 Minakami, S., 48
 Miner, E. B., 361, 362
 Miner, N., 66
 Mintz, B., 395
 Mirsky, A. E., 75
 Mitchell, J. F., 408
 Mitchell, J. H., 280, 281, 282
 Mitchell, P., 46
 Mitchell, R. A., 130
 Mithoefer, J. C., 132
 Mittler, J. C., 339
 Miura, K., 96
 Miura, M., 233, 242
 Miyoshi, T., 503
 Mizeres, N. J., 278
 Mizuno, N., 41, 43, 44
 Moe, G. K., 303
 Mogenson, G. J., 545, 551, 552
 Mognoni, P., 116
 Mohme, E., 239, 241
 Moir, T. W., 228, 270, 290
 Mol, G. K., 303
 Molhuysen, J. A., 158
 Molinari, G., 586
 Møller, A. R., 494
 Møllgaard, H., 10
 Molnár, L., 231, 234, 243
 Monaco, P., 503
 Monroe, R. E., 99, 100
 Monroe, R. G., 281
 Moody, F. G., 29
 Moor, R. M., 385, 387
 Moore, C., 45, 47
 Moore, E. N., 303
 Moore, G. P., 549
 Moore, J. W., 401, 402, 404
 Moore, N. W., 394
 Moorhead, M., 103
 Moorhead, P. S., 222
 Mora, J., 107
 Morad, M., 293
 Moran, F., 133
 Moran, J. M., 260
 Morest, D. K., 500
 Morgan, E. H., 199
 Morgan, H. E., 34
 Morgan, R. F., 393
 Morii, H., 353
 Morillo, A., 545
 Morimoto, H., 554
 Morita, Y., 35
 Morkin, E., 120

- Morley, J. S., 146
 Morrell, F., 558
 Morris, B., 198, 214, 221, 379
 Morse, L. J., 354
 Morse, L. L., 37
 Morse, R. W., 439, 562
 Morton, J. F., 90
 Moruzzi, G., 502
 Moscona, A. A., 74, 75, 76, 77
 Moscona, M. H., 76, 77
 Moser, K. M., 133
 Mosfeldt Laursen, A., 543-72; see Laursen, A. M.
 Moskowita, J. A., 580
 Most, H., 91
 Mostofsky, D. I., 505
 Motokawa, K., 456
 Mott, F. W., 564
 Mott, J. C., 234
 Motta, M., 343
 Mottram, R. F., 245
 Moukhtar, M. S., 358
 Mouloupoulos, S. D., 285
 Moulton, J. M., 492
 Mountcastle, V. B., 430, 432, 433, 434, 435, 436, 549, 562
 Moushegian, G., 441, 443, 444, 448, 449, 450, 499, 549
 Moyer, A. N., 33
 Mu, J. Y., 129
 Mudd, H. S., 104
 Mueller, C. G., 530
 Mueller, G. C., 358
 Muhleman, D. R., 30, 51
 Muir, A. R., 78, 429, 430
 Muldal, S., 391
 Mulhaupt, E., 51
 Mulholland, J. H., 205, 212, 213
 Muller, E., 318, 319
 Müller, R., 300
 Mullins, L. J., 26
 Mumtazuddin, A., 276
 Munk, A., 35
 Munford, R. S., 247, 271, 274, 275
 Munger, B. L., 354, 355
 Munson, E., 127
 Munson, P. L., 349, 350, 351, 352, 353, 354, 356, 357, 362, 363, 364
 Muramoto, J., 393
 Murata, K., 587
 Murphy, A. J., 133
 Murphy, O., 122
 Murphy, T. A., 80
 Murray, G. C., 539
 Muscholl, E., 76
 Musebeck, K., 495, 496
 Muset, P. P., 49
 Mushin, W. W., 131
 Mussett, M. V., 353
 Mutton, D. E., 392
 Mya-Ty, M., 276, 304, 306
 Myers, F. L., 90
 Myers, R. E., 500, 504, 563
- N
- Nadeau, R. A., 123
 Naedts, J. P., 117, 118
 Nagano, K., 41, 43, 44
 Nagao, T., 601
 Nagasaka, T., 245
 Nagy, S., 234
 Nair, P., 243
 Nairn, J. R., 126
 Naito, K., 522
 Naitove, A., 153
 Naka, K., 516, 526
 Nakajima, S., 403, 404
 Nakamura, T., 116, 123
 Nakamura, Y., 403, 404
 Nakao, M., 41, 43, 44
 Nakao, T., 41, 42, 43, 44
 Nakazawa, Z., 260
 Nalbandov, A. V., 331, 332
 Nallar, R., 337, 339, 340
 Narabayashi, H., 601
 Narahara, H. T., 34
 Narahashi, T., 401, 402, 404
 Nash, C. W., 245
 Nasserli, M., 268
 Nastuk, W. L., 404
 Nathan, D. A., 283
 Nation, J. L., 185
 Naumann, H. H., 495
 Naumow, N. P., 491
 Nauta, W. J. H., 598
 Needham, J., 106
 Neely, J. R., 34
 Neff, N. H., 306
 Neff, W. D., 445, 446, 503, 505
 Negus, N. C., 492
 Negus, V. H., 113
 Neil, E., 128
 Neill, J. D., 388
 Neilson, D. R., Jr., 555
 Nelson, D. M., 331, 332, 336
 Nelson, N. J., 382
 Nelson, P. G., 420, 421, 500, 558
 Nelson, T. E., Jr., 240
 Nes, N., 394
 Neuenschwander, J., 356, 357
 Neuman, M. W., 360
 Neuman, W. F., 359, 360, 364, 365
 Nevenzel, J. C., 96
 Neves, D. P., 156
 Neville, J. R., 133
 Newey, H., 23, 24
 Newman, F., 126
 Newsom Davis, J., 132
 Newton, J. L., 246
 Ney, R. L., 363
 Ng, M., 146
 Ngai, S. H., 228
 Nicholas, W. L., 94
 Nichols, G., Jr., 360, 361, 362
 Nicholson, T. F., 364
 Nicholson, W. M., 363
 Nicklaus, R., 486
 Nicolaysen, R., 365
 Nicoll, P. A., 240
 Nicoloff, D. M., 163
 Nieder, P. C., 505
 Niedergeser, R., 294, 297, 298
 Niesel, W., 263, 270
 Nikitovitch-Winer, M. B., 338, 382
 Nilsson, N. J., 133, 248
 Nishikawa, Y., 392
 Nishimoto, A., 601
 Nishith, S. D., 228
 Nisizawa, K., 90
 Nisizawa, T., 90
 Nissen, O. I., 233, 248
 Nissen, T., 561
 Niswender, G. D., 381
 Nitz-Litzow, D., 47
 Noble, D., 402
 Noble, M. I. M., 131
 Nodine, J., 216
 Nolan, M. O., 90
 Noll, R. M., 39
 Nomoto, M., 441, 499
 Nomura, Y., 496
 Nonomura, Y., 404, 408, 411
 Noordergraf, A., 266
 Norbäck, B., 248
 Norcross, B. M., 162
 Nordenström, B., 271
 Nordn, B. E. C., 363
 Nordmark, J., 507
 Norman, A. W., 45, 363, 365
 Norrell, L. W., 115
 North, K. A. K., 408, 411
 Northcote, D. H., 90
 Norton, H. W., 332
 Noseda, V., 263, 268
 Notices, A., 389
 Novick, A., 492, 493
 Novouin, C. P., 36, 38
 Nowell, P. C., 221
 Noyons, A. K., 297
 Numoto, M., 601

Nunn, J. F., 133
 Nustad, K., 245
 Nyberg, W., 158
 Nyberg-Hansen, R., 577,
 588, 590, 591, 592, 594,
 599
 Nyhus, L. N., 151, 152

O

Oberdisse, E., 300
 Oberg, B., 229, 237
 Obrecht, G., 299
 O'Brien, G. S., 266,
 269
 O'Brien, J., 381
 O'Brien, J. H., 557
 Obrink, K. J., 29
 Ochs, S., 552, 560
 O'Connor, M., 375
 O'Dell, R., 189
 Odell, W. D., 320
 Odelram, H., 246
 Odenthal, D. W., 507
 O'Donovan, P. B., 290
 Offenloch, K., 557
 Ogata, E., 365, 366
 Ogawa, T., 459, 460, 467,
 468
 Ogden, E., 279
 O'Grady, A. S., 354
 Ogura, H., 552
 Ohashi, H., 404
 Ohno, S., 392, 393
 Ohsawa, N. O., 343
 Ohshima, N., 127
 Ohye, C., 601
 Okada, G., 90
 Okinaka, S., 353
 Okubo, T., 116, 123
 Okuda, J., 429, 456
 Olbe, L., 153
 Olds, J., 552, 553
 O'Leary, J. L., 556,
 557
 Olendorf, S. Z., 248
 Olendorf, W. H., 248
 Oliverio, V. T., 30
 Olsen, P. Z., 595
 Olsson, R. A., 228
 Ontjes, D. A., 350, 352,
 354
 Oonishi, S., 444, 445, 447,
 501
 Opie, L. H., 267
 Order, S. E., 354
 Ordy, J. M., 502
 O'Riordan, J. L. H., 352,
 356
 Orkand, R. K., 294, 297,
 298
 Orloff, J., 38
 O'Rourke, M. F., 226
 Orr, T. B., 134
 Orrell, S. A., 88, 89
 Orsini, M. W., 332
 Ortega, B., 101, 102, 104

Ortiz, S., 343
 Ortiz-Pineda, J., 107
 Osadjan, C. E., 286,
 287
 Osborn, J. J., 225
 Osborne, P. J., 92
 Oshima, T., 544, 562
 Osman, M. F. N., 98
 Osoba, D., 218
 Ostiguy, G. L., 236
 Ostwald, W., 12
 Oswaldo-Cruz, E., 432
 Otsuka, M., 408, 411
 Otsuka, R., 471
 Ott, K., 577, 579,
 581
 Ouchi, S., 105
 Ovary, I., 228
 Overton, J., 78
 Owen, R. D., 393
 Oxender, D. L., 22, 23
 Oxenreider, S. L., 368

P

Pacifico, A. D., 122
 Padnos, D., 382, 384
 Paes de Carvalho, A., 298
 Paeslack, V., 231
 Page, E., 26, 27
 Page, I. H., 239
 Pain, M. C. F., 121
 Palade, G. E., 25, 28, 40,
 78, 181, 418, 420
 Palay, S. L., 199
 Paldino, R. L., 206, 212,
 243
 Palka, Y. S., 334
 Palmer, J. L., 126
 Palmer, L. S., 1, 2
 Pais, D. T., 247
 Pantin, C. F. A., 183
 Papermaster, B. W., 217
 Pappano, A. J., 404
 Pappas, G. D., 25, 40
 Pappenheimer, J. R., 244
 Papper, E. M., 125
 Pappius, H. M., 28
 Paradise, R. R., 260
 Pardee, A. B., 36, 51
 Park, C. R., 34
 Park, E. A., 360
 Park, W. L., 518,
 519
 Parker, I., 117
 Parker, M. L., 315, 316
 Parkes, A. S., 374, 375
 Parmeggiani, P. L., 501,
 502, 561
 Parot, S., 130
 Parratt, J. R., 262,
 263
 Parrish, J. E., 24, 31
 Parrott, D. M. V., 219
 Parry, G., 169, 171, 177,
 179
 Parsons, D. S., 30, 35
 Partridge, L. D., 576
 Pasantes, H., 101, 102,
 104
 Pascoe, J. E., 578
 Passaro, E. P., 156
 Passavoy, M., 358
 Pasteels, J. J., 374
 Patlack, C. S., 192
 Patt, H. M., 355
 Patten, W., 514
 Patterson, J. L., Jr., 119,
 242, 245
 Patterson, R. M., 206
 Patterson, R. W., 125
 Pattle, R. S., 118
 Patton, H. D., 561, 562
 Patton, R. L., 169, 185,
 190
 Paudier, F. T., 228
 Paul, L. T., 264, 265
 Paul, W. F., 320
 Paulet, G., 122
 Pauling, L., 4
 Pavlov, I. P., 560
 Pavlova, N. A., 585,
 586
 Payne, R. M., 282
 Pearce, J. W., 227
 Pearl, J. M., 163
 Pearse, A. G. E., 90,
 355
 Pearson, C. M., 162
 Pearson, J. A., 142
 Pearson, P. B., 106
 Pecci-Saavedra, J., 559
 Pechet, M. M., 356, 357,
 362, 363
 Pecile, A., 318, 319
 Peck, D., 75
 Peck, E. J., Jr., 105, 106
 Peck, W. A., 357, 365
 Peiper, U., 283, 284
 Peiss, C. N., 227, 229, 231,
 237
 Pellegrini, P., 272
 Pelletier, J., 330, 331
 Peltier, L. R., 119
 Pelzer, A.-M., 116
 Penfield, W., 550, 561
 Penman, R. W. B., 124
 Penniston, J. T., 45
 Pentchev, P. G., 50
 Pentecost, B. L., 208
 Peper, K., 294
 Pepeu, G., 459, 464
 Perault, A. M., 358
 Peretti, G., 583, 585
 Perkins, H. R., 360
 Perl, E. R., 230, 231
 Perl, W., 128
 Perlman, H. B., 495
 Permutt, S., 124
 Pernow, B., 236, 245,
 246
 Perot, P., 550, 561
 Perret, C., 126, 559
 Perry, J. S., 385, 388

- Perryman, J. H., 131
 Peschal, M., 232
 Petelenz, T., 278
 Peter, E. T., 163
 Peter, J. B., 45
 Peters, E. N., 505
 Peters, H., 169, 172, 181, 182
 Peterson, E. A., 490
 Peterson, L. H., 225, 233, 239, 281
 Peterson, N. J., 451
 Peterson, R. D. A., 217
 Peterson, R. E., 127
 Petit, J. M., 115, 119
 Petri, G., 234
 Petro, Z., 379
 Pfalz, R., 503
 Pfeiffer, B., 23, 32
 Pfeiffer, C. J., 162
 Pfeiffer, R. R., 499
 Phebus, C. K., 343
 Phelan, E. L., 232
 Philippu, A., 306
 Phillips, J. E., 186, 188
 Pichler, A. G., 23, 32
 Pick, R., 210
 Picken, L. E. R., 169, 171, 172, 173, 174
 Piemme, T. E., 288
 Pieper, H. P., 264, 265, 279
 Pierce, J. A., 114
 Piper, J., 125, 126
 Pilar, G., 412, 419, 420, 587
 Pincus, G., 338, 374
 Pinkerson, A. L., 235
 Pinter, R. B., 527
 Pinto-Hamuy, T., 503
 Piper, D. W., 142, 143, 144
 Pirene, M. H., 533, 535, 536
 Pitman, E. R., 161
 Pittinger, C. B., 113, 132
 Pitts, W. H., 457, 460
 Pleschka, K., 129
 Poggio, G. F., 433, 434, 435, 436, 522, 549
 Poirier, L. J., 590, 591, 598, 599
 Polgar, G., 132
 Pollard, A. A., 232
 Pollock, F., 243
 Polson, M. D., 452
 Pompeiano, O., 575, 594
 Pool, W. E., 376
 Pope, A. L., 386
 Porrini, A., 162
 Porter, G. A., 34, 35
 Porter, R., 586
 Porter, R. W., 552
 Portman, P., 183
 Posey, E. L., 141, 148
 Post, R. L., 41, 42, 43
 Potter, D. D., 101
 Potts, J. T., Jr., 349, 350, 351, 353, 354, 355, 357, 365, 366
 Potts, W. T. W., 169, 170, 172, 173, 174, 176, 180, 183
 Pötzsch, E., 259
 Poulter, T. C., 492
 Powell, T. P. S., 498
 Power, G. G., Jr., 126
 Pradel, L. A., 105
 Prate, W. B., 390
 Pratt, O. E., 214
 Prenant, M., 183
 Prerovsky, I., 229
 Prescott, L. M., 93
 Preshaw, R. M., 148, 149
 Presman, J. J., 206
 Press, N., 172
 Pressman, B., 45, 46
 Pressman, B. C., 45, 46, 47
 Prestidge, L. S., 36, 51
 Preston, J., 146
 Preston, J. B., 303, 561, 588, 589
 Priban, I. P., 131, 132
 Pribble, A. H., 338
 Pribram, K. H., 543
 Priola, D. V., 286, 287
 Pritchard, A. W., 94
 Pritchard, R., 470, 549
 Pritchard, W. H., 247
 Prockop, D. J., 362
 Proctor, D. F., 115
 Proctor, F., 600
 Proler, M. L., 595
 Prosser, C. L., 178, 179, 180
 Protasow, W. P., 488
 Prout, B. J., 229
 Provini, L., 119
 Pryor, M. G. M., 102
 Puccinelli, R., 125, 131
 Puff, A., 286, 287
 Pugh, G. O., 234
 Pugh, J. E., 501
 Pullman, T. N., 363, 364
 Purple, R. L., 528, 529
 Purpura, D. P., 555, 557, 559
 Purves, P. E., 491
 Purvis, J. H., 288
 Puyear, R. L., 94
 Pye, A., 491
 Pye, J. D., 492
 Quastel, J. H., 21, 30, 35
 Quattrone, P. D., 133
 Quay, W. B., 103
 Quinn, D. B., 514
 Quinn, D. J., 183
 Quinn, D. L., 333
 Quintana, R. B., 148, 150
 R
 Raab, W., 230
 Rabinovitz, M., 358
 Rackow, H., 128
 Rácz, S., 228, 261
 Radde, I., 363
 Radford, E. P., Jr., 133
 Radionova, E. A., 489
 Ragins, H., 160
 Rahn, H., 128
 Rai, K., 220
 Raiciulescu, N., 228
 Raisz, L. G., 354, 356, 357, 358, 361
 Ralph, C. L., 190
 Ramberg, C. F., Jr., 353, 355
 Rameaux, Z., 11
 Ramirez, V. D., 334, 335, 336
 Ramsey, A. G., 364
 Ramsey, J. A., 169, 171, 173, 182, 185, 186, 187, 188, 189
 Rand, R. P., 236
 Randall, H. G., 23
 Randall, W. C., 225-58; 226, 231, 237, 286, 287
 Raoul, Y., 363
 Raper, A. J., 119
 Rascanu, V., 234
 Rasmussen, G. L., 490
 Rasmussen, H., 349-72; 35, 349, 350, 351, 352, 353, 354, 356, 357, 358, 359, 362, 363, 364, 365, 366
 Rathmacher, R. P., 388
 Rathone, L., 92
 Ratliff, F., 428, 516, 525, 527, 528, 529, 530, 533
 Ratner, S., 107
 Rauch, S., 485, 495
 Ray, C., 420
 Ray, M., 395
 Ray, O. S., 552
 Raybuck, H. E., 203, 204, 208, 216
 Rayford, C. R., 265, 267, 268, 272
 Read, C. P., 92
 Read, D. J. C., 125
 Read, J., 125
 Read, W. O., 106
 Reasa, D., 41
 Redding, T. W., 323, 327, 338
 Redfearn, J. W. T., 556
 Redford, J. B., 580
 Redgate, E. S., 343

- Reed, G. E., 211
 Reed, J. D., 142
 Rees, K. R., 92
 Reeser, F., 345
 Regan, M. J., 125
 Regan, T. S., 234
 Rehm, W. S., 49
 Reich, E., 358
 Reichardt, W. E., 537
 Reichenbach, H., 12, 14
 Reichert, L. E., Jr., 329, 331, 339, 353
 Reichlin, S., 315, 316, 317
 Reiffenstein, E. C., Jr., 363
 Reindell, H., 267, 268
 Reinhardt, W. O., 219
 Reis, D. J., 228, 580
 Reiser, R., 96
 Reiss, R. F., 549
 Reit, E., 245
 Rendi, R., 40, 247
 Renkin, B. Z., 581
 Renkin, E. M., 202, 243
 Renold, A. E., 33, 34
 Rens, W., 272
 Repetto, Y., 93
 Reuter, H., 293
 Rexed, B., 544, 588, 592
 Reynolds, R. N., 116
 Reynolds, R. W., 164
 Rheault, M. H., 158
 Rhode, E. A., 284
 Rhodes, P. G., 133
 Rhodin, J. A. G., 114
 Ribb, W. R., 36
 Rice, B. F., 380, 384
 Rice, R. V., 103
 Rich, C., 363, 364
 Richardson, A. W., 290
 Richardson, D. W., 245
 Richardson, P. S., 117, 131
 Richardson, T. Q., 234
 Richelle, M., 163
 Richet, C., 2
 Richman, H. G., 295
 Richter, H., 561
 Ricketts, J., 98
 Ricordeau, G., 391
 Riegel, J. A., 170, 171, 172, 174, 176, 177, 179, 181, 182, 186, 187
 Rieke, W. O., 220
 Riggs, T. R., 33, 35
 Riley, R. L., 124
 Ring, K., 31, 36, 37, 38
 Rinvik, E., 590, 591, 594, 599
 Ritchie, W. P., 163
 Rivera, G. F., 92
 Rizzo, S. C., 48
 Robbins, E., 82
 Robbins, S. L., 277
 Robbins, W. E., 96, 99
 Roberts, E., 30, 51, 100, 106
 Roberts, T. D. M., 433, 576
 Robertson, A. D. J., 556
 Robertson, J. D., 169, 179, 180, 191, 418, 420
 Robichon, J., 357
 Robin, Y., 105
 Robinson, D. A., 226
 Robinson, J. W. L., 30
 Robinson, S., 246
 Robson, J. M., 375
 Robson, K., 546
 Roche, J., 105
 Rockney, R., 363
 Rodbell, M., 33, 34
 Roddick, I. C., 146, 241
 Roddy, P. M., 35, 42
 Rodegker, W., 96
 Rodick, F. S., 237
 Rodieck, R. W., 443, 452, 456, 459, 461, 462, 464, 465, 466, 468, 469, 548, 549
 Rodionov, I. M., 229
 Rodnight, R., 42
 Rodriguez, F. L., 277
 Roeder, K. D., 487
 Rogel, S., 287
 Rogers, L. A., 241
 Rogers, T. A., 13
 Roggo, H., 183
 Rogus, E., 34
 Rohde, R., 275
 Rojas, J. A., 460, 461, 462
 Rollett, E. L., 265
 Romain, L. F., 23
 Romanes, G. J., 588, 592
 Romanoff, E. B., 375
 Rombaubs, P., 382, 388
 Rome, N., 360
 Ronaldson, J. W., 379, 386
 Rook, J. A. F., 13
 Rose, G. A., 352
 Rose, J. E., 441, 442, 443, 444, 449, 500
 Rosenberg, E., 331
 Rosen, S. M., 357, 365
 Rosenberg, I. H., 29
 Rosenberg, L., 23
 Rosenberg, L. E., 29
 Rosenberg, R., 24
 Rosenblith, W. A., 486, 496
 Rosenthal, A. S., 42
 Rosenzweig, M. R., 448, 486, 487, 489, 553, 554
 Ross, G., 245, 262, 272
 Ross, H. F., 497, 501
 Ross, J., 242, 265, 266, 269, 279, 280
 Ross, J., Jr., 228
 Ross, J. C., 126
 Rossi, C. S., 45, 46
 Rossi, G., 586
 Rossing, R. G., 134
 Roth, G. J., 360
 Roth, J., 314, 315, 316
 Roth, S. A., 77, 79
 Roth, S. I., 354, 355
 Rothchild, I., 379, 380, 381
 Rothermich, N. O., 162
 Rothfield, N., 162
 Rothschild, G. H., 551
 Rothstein, A., 33, 50
 Rothstein, M., 101
 Rottenberg, H., 45
 Roubal, W. T., 96
 Roufs, J. A. J., 467
 Rougeul, A., 559
 Routtenberg, A., 551
 Rovick, A. A., 225-58; 242
 Rowe, G. G., 269
 Rowland, V., 555
 Rowlands, I. W., 376, 385, 388
 Rowlands, S., 234
 Rowson, L. E. A., 379, 385, 387, 394
 Royd, I. A., 574
 Ruarte, A., 402
 Ruben, R. J., 498, 505
 Rubenstein, E. H., 237
 Rubin, B. L., 353
 Rubinstein, L., 35
 Rubio, R., 247, 271
 Rubner, M., 2
 Ruchkin, D. S., 560
 Ruck, P., 513, 527
 Rudjord, T., 577, 578, 581, 582
 Rudolph, G., 586
 Rudomin, P., 233
 Rümke, P. H., 40
 Rune, S. J., 155
 Rupert, A., 441, 443, 444, 448, 449, 450, 476, 499, 549
 Rushmer, R. F., 228, 280, 281, 288, 291
 Rushton, W. A. H., 450, 532, 564
 Rushworth, G., 573, 579
 Rusinov, V. S., 556
 Ruska, H., 495
 Russell, C. J., 521, 522
 Ruth, E. D., 357
 Rutkowski, S., 576, 582, 583, 584, 585
 Rutledge, L. T., 547, 554
 Ryall, R. W., 593
 Ryan, K. J., 379, 380
 Ryback, R., 278
 Rybová, R., 26
 Rynes, R., 49

S

- Saavedra, M. A., 503
 Sachs, E., 560
 Sachs, G., 39
 Sackner, M. A., 115
 Sadowski, B., 598
 Sadusk, J. F., 374
 Saffman, P. G., 120
 Sagalovich, B. M., 494
 Sagawa, K., 233
 Sagi, Y., 116, 123
 Said, S. I., 115, 128, 209
 Saito, T., 340
 Sakamoto, T., 288
 Sakhlivina, G. T., 559
 Sakiz, E., 314, 319, 320, 323, 324, 326, 327, 328, 330, 332, 338, 381
 Salanitro, E., 128
 Salem, S. N., 162
 Sallis, J. D., 35, 354, 365
 Salmoiraghi, G., 556
 Saltpeter, M. M., 187
 Samet, P., 283
 Samiy, A. H., 363, 364
 Sammons, B. P., 247
 Sampson, J. J., 209
 Sampson, S., 586
 Samueloff, S. L., 244
 Sancetta, S. M., 248
 Sandberg, N., 200
 Sanders, E., 200
 San Martin, M. L., 343
 Santa Ana, A. D., 154
 Sant'Ambrogio, G., 119, 131
 S'ao, C. H. T., 246
 Saracino, F., 116
 Saravis, C. A., 320
 Sarcas, A., 285
 Sarnoff, S. J., 281
 Sarrus, 2, 11
 Sasaki, K., 506, 598, 601
 Sasaki, M. S., 394
 Sasaki, T., 116, 123
 Sasmor, R. M., 553
 Sass, M. B., 214, 379
 Sastry, P. S., 43
 Sato, T., 333, 558
 Satterfield, J. H., 559
 Sattin, A., 43
 Saunders, St. J., 23
 Savard, K., 379, 380, 384
 Savolainen, V. P., 231
 Sawrey, K. R., 242
 Sawyer, C. H., 334, 336, 382, 383
 Saxena, K. N., 102
 Sayers, B. McA., 507
 Saz, H. J., 89, 92
 Schachter, D., 357, 365
 Schade, J. P., 543
 Schaepdryver, A. F., 129
 Schleich, D. S., 317
 Schally, A. V., 318, 319, 323, 327, 338, 339, 340
 Schanker, L. S., 30
 Schaper, W., 259-312; 268, 272, 279, 280, 285, 290
 Schapiro, S., 342
 Scharlock, D. P., 445, 446
 Sharma, S. K., 30, 35, 51
 Sharman, G. B., 376, 389, 390
 Scharturn, S., 360
 Schatzle, W., 496
 Schatzmann, H. J., 40, 41
 Scheffel, K. G., 183
 Scheibel, A. B., 546
 Scheibel, M. E., 546
 Scherlag, B. J., 284, 291
 Scherrer, H., 558
 Scheuerbrandt, G., 96
 Schiffmann, E., 360
 Schilb, T. P., 28, 29
 Schiller, E., 92
 Schindler, W. J., 324
 Schlaer, S., 533, 535, 536
 Schliag, J., 553, 590
 Schlegel, H.-J., 575, 576
 Schlesinger, M. J., 277
 Schmahl, F. W., 263
 Schmidt, C. F., 271
 Schmidt, G. H., 98
 Schmidt, K., 263, 270
 Schmidt, R. F., 407, 411, 412, 413, 439, 544, 545, 562
 Schmidt, R. S., 490, 491
 Schmidt-Nielsen, B., 169, 181, 189
 Schneider, H., 488, 492
 Schneider, R. C., 596
 Schoffeniels, E., 183
 Scholefield, P. G., 22, 24, 32
 Scholer, J. F., 212
 Scholes, J., 526, 536
 Scholl, H., 506
 Scholles, W., 179, 180
 Schoner, W., 44
 Schreiber, V., 326
 Schreiner, G. L., 281
 Schultz, S. G., 30, 36, 38
 Schulz, A., 470
 Schulz, R. L., 420
 Schulze, W., 40
 Schülmann, H. J., 306
 Schwartz, A., 41
 Schwartz, N. B., 330, 332, 333
 Schwartz, S. I., 233
 Schwartz, W. B., 133
 Schwartzkopf, J., 485-512; 449, 486, 487, 489, 490, 492
 Schwarzacher, H.-G., 391
 Schwinghamer, J. M., 242
 Scopes, J. W., 202
 Scott, A. C., 241
 Scott, J. S., 395
 Scott, M. J., 235
 Scott, W. R., 404
 Scraff, T., 559
 Scroop, G. C., 245
 Sears, T. A., 129, 439, 558, 562, 582, 583, 584
 Sechzer, J. A., 451
 Sedar, A. W., 78
 Sedvall, G., 237, 238
 Segal, H. L., 145, 157, 158
 Segal, S., 23
 Segal, S. J., 389, 390
 Segundo, J. P., 549
 Seifen, A., 133
 Sekeris, C. E., 102
 Selenkow, H. A., 320
 Selkurt, E. E., 234
 Semba, T., 358
 Semenza, G., 51
 Semple, S. J. G., 129
 Sen, A. K., 41, 42, 43
 Senapati, J. M., 131
 Senay, L. C., Jr., 235
 Senft, J., 401, 402
 Servelle, M. J., 208
 Seubert, W., 44
 Sevelius, G., 227, 234
 Sever, R. J., 126
 Severinghaus, J. W., 125, 127, 133, 134
 Seylaz, J., 243
 Shaffer, R. A., 238
 Shahab, L., 261, 305
 Shanes, A. M., 293
 Shanzer, S., 592
 Shapira, D., 148
 Shapiro, B. J., 122
 Shapiro, W., 119
 Shapovalov, A. I., 597, 598
 Share, N. H., 228
 Shargel, R., 125
 Sharlock, D. P., 504
 Sharp, G. W. G., 34, 35
 Sharpe, A. R., Jr., 245
 Shaw, J., 169, 175
 Shealy, C. N., 72
 Sheehan, R. M., 121
 Shellinford, J. P., 208
 Shepard, R. H., 133
 Shepard, R. H., Jr., 132
 Shepherd, G. W., 364
 Shepherd, J. T., 233, 237, 238, 242, 244, 246
 Sheppard, R. C., 146

- Sheps, S. G., 165
 Sherman, J. D., 216
 Sherman, J. H., 23, 24
 Sherrington, C. S., 554, 564
 Sherwood, L. M., 353, 355
 Shibuya, S., 105
 Shimazu, H., 562, 578, 601
 Shinowara, G. Y., 215
 Shinozaki, T., 134
 Shivak, R. J., 245
 Shore, N. N., 228
 Shore, P. A., 155, 306
 Shorland, F. B., 96
 Short, R. V., 373-400; 378, 379, 380, 381, 385, 386, 387, 388, 392
 Shortino, T. J., 100
 Shubin, H., 234
 Shumpert, E., 582
 Shurtleff, D. A., 505
 Shuster, C. N., 514
 Siakotos, A. N., 98
 Siebert, G., 47
 Siebert, W. M., 548
 Sieck, M. H., 428
 Sikand, R. S., 125
 Silver, A., 128
 Silver, J. R., 230
 Silver, R. H., 159
 Silverman, L., 133
 Silverman, M., 22
 Siminoff, R., 433
 Simmons, D. H., 122
 Simmons, R. L., 233
 Simon, E., 230
 Simon, M. B., 206
 Simonsen, D. G., 100
 Simpson, F. O., 237
 Simpson, J., 122
 Simpson, J. W., 87-112; 92, 93, 95, 100, 102
 Simpson-Morgan, M. W., 133
 Sindberg, R. M., 500
 Singer, D. H., 120
 Singh, I., 297
 Singh, S. I., 297
 Singleton, L., 103
 Sinha, D. K., 322, 323, 325, 327
 Sinz, V., 33
 Sipe, C. R., 220
 Siqueria, E. B., 588
 Siurala, M., 158, 161
 Sjodin, K., 219
 Sjödin, L., 144, 145
 Sjoerdsma, A., 362
 Sjöström, U., 360
 Skinner, N. S., 280
 Skoglund, S., 433
 Skolasinska, K., 275
 Skoryna, S. C., 143
 Skou, J. C., 39, 42, 183
 Slack, E., 356
 Slayman, C. L., 27
 Sledge, C. B., 359
 Slee, J., 394
 Sleight, M. A., 115
 Sleisenger, M. H., 161
 Slusher, M. A., 341
 Smetzer, D. L., 281
 Smissman, E. E., 100
 Smith, A. H., 13
 Smith, C. R., 281
 Smith, D. C., 228
 Smith, D. R., 548
 Smith, F. D., 432, 443, 450
 Smith, G. K., 548
 Smith, H., 489
 Smith, H. E., 547
 Smith, H. W., 190
 Smith, J. C., 533, 537
 Smith, J. H., 213
 Smith, L. L., 234
 Smith, O. A., 226, 227
 Smith, O. A., Jr., 227, 228
 Smith, O. W., 380
 Smith, P., 148
 Smith, R. L., 375
 Smith, R. S., 573, 574
 Smith, T. G., 518, 520, 524, 525, 526
 Smith, T. G., Jr., 518, 519, 522
 Smith, W. M., 236
 Smothers, J. L., 132
 Smulyan, H., 287
 Smulyan, N., 236
 Smyth, D. H., 23, 28, 29, 30, 31, 34
 Smyth, T., Jr., 97
 Snaith, L., 374
 Snell, F. M., 26, 127
 Snimiza, S., 248
 Snyder, F., 152
 Snyder, S. H., 155
 Soberon, G., 107
 Sofuni, T., 394
 Sognnaes, R. F., 349
 Sohmer, H., 497, 503
 Sokolov, E. N., 543, 550
 Sokolova, E. V., 338
 Solier, M., 391
 Soliman, H. A., 356
 Solomon, A. K., 37, 45
 Solomon, C., 234
 Solomon, M., 277
 Solomon, S. H., 322
 Soman, P. D., 165
 Sombre, E. R., 389
 Somlyo, A. V., 241
 Somogyi, J., 41
 Sonnenblick, E. H., 265, 279, 280, 281, 283, 284, 286
 Soule, E. H., 162
 Sourkes, T. L., 598, 599
 Spalding, A. E., 172, 182, 184
 Spalding, J. M. K., 231
 Spence, A., 495
 Spencer, G. T., 129
 Spencer, W. A., 544, 555, 558
 Sperry, R. W., 59, 62, 71, 81, 563
 Spicer, S. S., 160
 Spiegel, M., 74
 Spies, H. G., 386
 Spinelli, D. N., 543
 Spink, W. W., 234
 Spong, P., 558
 Sprague, J. M., 458, 546
 Spurr, D., 132
 Srebro, R., 538
 Sreenivasaya, M., 95
 Srivastava, P. N., 185
 Staddon, B. W., 185
 Stahl, W. L., 43
 Stahlmann, K., 28
 Stainer, I. M., 174, 177
 Stainton, W. H., 467
 Staley, R. W., 133
 Stallings, J. O., 147
 Stamatiopoulos, S., 285
 Stamm, W., 263
 Standish, M., 578
 Starr, A., 494
 Starzl, T. E., 545
 State, D., 148
 Staubesand, J., 204
 Stauch, M., 292
 Steele, J. E., 90
 Steele, R. I., 552, 560
 Steelman, S. L., 319
 Steenbock, H., 363
 Stefanis, C., 557, 562, 590
 Steg, G., 574, 579
 Steggerda, F. R., 247
 Steggles, A., 389
 Steigbigel, H., 116
 Steim, H., 267, 268
 Stein, C. I., 96
 Stein, E., 300, 303
 Stein, L., 504
 Stein, R. B., 548, 581
 Stein, W. D., 24, 51
 Steinberg, M. S., 74, 76, 77, 78, 79, 80, 81
 Steinbergen, J., 158
 Steiner, R. E., 208
 Steiner, S. H., 126
 Steinmetz, P. R., 247
 Stellar, E., 546, 550
 Stenius, C., 392, 393
 Stensaas, L. J., 549
 Sterben, M. I., 154
 Stern, B. D., 359
 Stern, J., 579
 Stern, P. H., 354, 356
 Stetten, D., Jr., 88
 Stetten, M. R., 88

- Stevens, S. S., 428, 435
 Stevenson, E., 89
 Stevenson, J., 30
 Stewart, D. M., 170, 173,
 174, 176, 177, 179
 Stewart, G. R., 19
 Stewart, J. S. S., 393
 Stieve, H., 520
 Stobbart, R. H., 169
 Stoelting, V. K., 260
 Stoerk, H. C., 355
 Stohlman, F., 221
 Stohr, P. E., 557
 Stomshak, F., 383
 Stone, B. A., 90
 Stone, G. M., 389
 Stone, J., 459, 460, 461,
 462, 466, 467, 469
 Stone, W. H., 394
 Stopp, P. E., 490,
 564
 Storm, S. R., 26
 Stormont, C., 394
 Stott, A. K., 321, 322,
 340
 Stover, J. H., 518
 Strandell, T., 236
 Straschill, M., 460
 Strauer, B. E., 283
 Straughn, W. R., 36
 Straznický, K., 68
 Strickland, K. P., 41, 42,
 43
 Strominger, N. L., 445,
 446, 599, 600, 601
 Strong, S. J., 393
 Strumwasser, F., 401, 405,
 408, 418
 Stuart, D. G., 555, 577, 581,
 597
 Subrin, M. I., 155
 Stutman, L. J., 215
 Suga, N., 441, 443, 447,
 488, 493, 499, 501
 Sugita, S., 336
 Sulker, A. P., 357, 365
 Sullivan, F., 375
 Sullivan, L. W., 159
 Sullivan, M. M., 392
 Sullivan, S. F., 125
 Sulzer, D., 467
 Sun, D. C. H., 160
 Sung, C. P., 29
 Sutcliffe, D. W., 188
 Sutherland, D. E., 216
 Sutherland, E. W., 384
 Sutherland, N. S., 545
 Suutarinen, T., 231
 Suzuki, J.-I., 594
 Suzuki, M., 336
 Suzuki, S., 234
 Svaetichin, G., 454
 Svedmyr, N., 244
 Sveinsdottir, E., 248
 Swanson, P. D., 43
 Swenson, E., 271
 Swets, J. A., 436, 505
 Swift, J., 2
 Swift, M., 433, 436
 Szanto, J., 231, 234
 Sze, Y., 350, 352
 Székely, G., 63, 67
 Szentágothai, J., 69,
 439
 Szentiványi, M., 228, 259,
 260, 261
 Szumski, A. J., 414
 T
 Tabakin, B. S., 116, 134
 Tabor, L. A., 98
 Tahmisian, T. N., 187
 Taira, N., 429, 456
 Takagi, Y., 131
 Takahashi, K., 411, 419,
 589
 Takahashi, Y., 353
 Takama, K., 96
 Takenaka, F., 260,
 261
 Takenaka, T., 402
 Takeuchi, A., 404, 405, 406,
 408
 Takeuchi, N., 404, 405,
 406
 Takishima, T., 116, 123
 Talamers, F. N., 243
 Talbot, S. A., 471
 Talmage, R. V., 349, 355,
 356, 357, 360, 365
 Talwar, G. P., 389
 Tamaoki, H.-L., 330
 Tamir, H., 107
 Tamura, M., 488
 Tan, U., 575
 Tanaka, I., 522, 526,
 529
 Tanaka, R., 41, 42, 43
 Tanaka, T., 596, 598,
 601
 Tanaka, Y., 221, 503
 Tandler, J., 393
 Tanner, W. P., 436
 Tapia, R., 101, 102, 104
 Tapp, J. T., 554
 Taquini, C., 229
 Tara, N., 242
 Tarkowski, A. K., 395
 Tarlow, A. R., 50
 Tarnecki, R., 588
 Tárnoky, R., 234
 Tasaki, I., 402
 Tashima, Y., 41, 43,
 44
 Tashjian, A. H., Jr., 349,
 350, 351, 352, 353, 354,
 356, 357, 358
 Tata, J. R., 389, 390
 Tatal, K., 232, 240
 Taub, A., 431, 432
 Taub, E., 564
 Tauc, L., 404, 416, 417
 Tavoiga, W. N., 488
 Taylor, A., 128, 134
 Taylor, A. C., 74, 82
 Taylor, A. N., 365
 Taylor, C. W., 545
 Taylor, D. E. M., 231
 Taylor, G. W., 207
 Taylor, J. F., 98
 Taylor, J. R., 235
 Taylor, K. B., 158
 Taylor, M. G., 226, 239
 Taylor, S., 375
 Taylor, W. K., 553
 Teal, J. M., 133
 Teas, D. C., 500
 Teasdale, R. D., 588,
 589
 Tecimer, L. B., 154, 155
 Teitelbaum, P., 551
 Telegdy, G., 379
 ten Bruggencate, H. G.,
 576
 Tenenhouse, A. M., 349-72;
 35, 356, 357, 359
 Tenney, S. M., 132
 Teplitz, R. L., 393
 Teplot, S. I., 229
 Teräslinna, P., 134
 Terayama, Y., 495
 Teres, D., 234
 Terracol, J., 586
 Terzuolo, C. A., 593,
 594
 Teuber, H.-L., 600
 Thauer, R., 235
 Thier, S., 23
 Thies, R. E., 408, 411,
 412
 Thilenius, O. G., 122
 Thoai, N. V., 105
 Thomas, E. C., 440, 441
 Thomas, H. W., 234
 Thomas, U. L., 37
 Thompson, C. R., 330
 Thompson, D. D., 363,
 364
 Thompson, G. A., 98
 Thompson, J. C., 147
 Thompson, M. J., 99, 100
 Thompson, R., 563
 Thompson, R. F., 500, 503,
 547, 548, 555
 Thompson, R. W., 552
 Thompson, W. T., Jr.,
 119
 Thomson, M. L., 116, 125,
 126
 Thongasami, S., 228
 Thorson, J., 238
 Threefoot, S. A., 206
 Thalesius, O., 242, 243,
 246
 Thulin, C. A., 591, 592
 Thurlow, W. R., 506
 Tice, D. A., 211
 Tiedt, N., 268, 275
 Tiepolo, L., 391
 Tierney, D. F., 118, 119

- Tigges, J., 557
 Tillinger, K.-G., 391
 Timo-Iaria, C., 593
 Tionaytis, C., 300
 Titova, L. K., 486, 489
 Titus, E. O., 35
 Tobin, C. E., 114
 Tochino, Y., 30
 Todd, J. E., 161
 Todd, M., 172, 173
 Toft, D., 389
 Toft, R. J., 355
 Tolani, S., 358
 Tominaga, S., 242
 Tomita, T., 526, 529
 Tomlinson, G. A., 101
 Tomus, L., 231
 Tonkonogil, I. M., 506
 Tonnesen, H., 246
 Toole, F. E., 507
 Torchiana, M. L., 306
 Torjussen, W., 133
 Torrance, R. W., 128, 243
 Torreggiani, G., 272
 Torres, J., 303
 Torrey, C. C., 564
 Torri, G., 116
 Tosi, R., 51
 Tosteson, D. C., 41, 50
 Toverud, S. U., 357, 363
 Tow, D. E., 122
 Towe, A. L., 439, 561, 562
 Townes, P. L., 74
 Toyama, K., 575, 580
 Tozer, T. N., 306
 Traber, D. L., 215
 Tracey, M. V., 90
 Tracy, H. J., 146
 Traczyk, W., 598
 Trainin, N., 218, 219
 Traks, E., 248
 Tramontana, J. H., 147
 Trapnell, D. H., 209
 Traut, R. R., 90
 Trautwein, W., 294
 Treadgold, S., 375
 Tremblay, G., 355
 Trenchard, D., 131
 Trier, J. S., 159
 Trinkaus, J. P., 74
 Trivelloni, J. C., 90
 Trop, D., 124
 Troquet, J., 115
 Troth, R., 595
 Troughton, V. A., 363, 364
 Trujillo, J. M., 392, 393
 Trygstad, C. W., 75
 Tsao, H. S., 356
 Tsuchiya, Y., 96
 Tsujimoto, T., 39
 Tsunoo, M., 495
 Tsurufugi, S., 363
 Tsybenko, V. A., 229
 Tucker, L. E., 177, 190
 Tucker, T. J., 504
 Tuckman, J., 244
 Turksay, R. N., 374
 Turner, C., 141, 148
 Turner, M. D., 142
 Tuttle, R. S., 228
 Tweedy, W. R., 364
 Twining, R. H., 122
 Tyler, M. D., 271, 274, 275
 Tyler, W. J., 394

 U
 Uchida, I. A., 395
 Uchiyama, H., 444
 Ueland, K., 281
 Uemura, K., 561, 588, 589
 Uhley, H. N., 209
 Uhr, M. L., 40
 Ukyo, S., 159
 Ulbricht, W., 401, 402, 404
 Ullberg, S., 389
 Ullrey, D., 39
 Ulmer, F., 236
 Ulmer, W. T., 236
 Ungar, A., 123, 131
 Ungar, F., 376
 Unger, H., 181, 190
 Usami, S., 232
 Usherwood, P. N. R., 405
 Usinger, W., 230
 Ussing, H. H., 21, 25, 37, 38
 Utiger, R. D., 315
 Uyman, K., 231, 234, 237
 Uvnäs, B., 144, 145, 228

 V
 Vaes, G. M., 349, 352, 359, 361
 Vakkur, G. J., 474
 Valenstein, E. S., 505
 Vallbo, A. B., 403, 581
 Vallotton-Delachaux, M. C., 51
 van Bergeljk, W. A., 449, 489, 492
 Van Clitters, R. L., 241, 288
 Van den Brenk, H. A. S., 133
 Van den Oord, A., 99
 van der Meulen, J. P., 577, 581
 van der Werf, T., 286
 Vande Wiele, R. L., 374
 Van de Woestijne, K. P., 117, 118
 Vanhoutte, P., 237
 Van Kessel, A., 121
 Van Liew, H. D., 128
 Van Reen, R., 360
 Van Slyke, D. D., 100
 Van Stevenink, J., 50
 Vardanis, A., 90
 Varenne, P., 131
 Varga, F., 325
 Varon, S., 30, 51
 Vassalle, M., 301
 Vatz, K. A., 22
 Veale, J. L., 401-26
 Veall, N., 248
 Veerabhadrapa, P. S., 103, 104
 Velcoff, S. M., 321
 Velluti, R., 544
 Venecia-Fernandez, J., 392
 Verbanck, M., 363
 Verga, Z., 273, 274
 Verhey, B. A., 574, 576
 Vernikos-Danellis, J., 344
 Vernon, J. A., 490, 492
 Vernon, L. P., 48
 Verworm, M., 10
 Vertes, M., 325
 Vidaver, G. A., 23, 31
 Vidrine, A., 92
 Vieira, E. C., 89
 Vierck, C. J., Jr., 546
 Viernstein, L. J., 436, 549
 Vietinghof, U., 190
 Vigran, A., 506
 Villablanca, J., 588, 589
 Villegas, J., 560
 Villegas, L., 28
 Vincent, J., 357
 Vincent, W. A., 236
 Vinnikov, Ya. A., 486, 489
 Vinther, A., 117
 Visscher, M. B., 266, 295
 Voelkel, E. F., 356
 Vogel, G., 29
 Voinescu, S., 228
 Volk, G., 29
 Volle, R. L., 404
 von Brand, T., 90, 91, 92
 von Baumgarten, R., 61
 von Euler, C., 131, 558, 576, 582, 583, 584, 585, 586
 von Euler, U. S., 305
 von Frisch, K., 533
 von Helmholtz, H. L. F., 428
 Vonk, H. J., 96
 von Leden, H., 586
 von Neumann, J., 545, 562
 von Rehren, D., 503
 von Schulthess, G., 494
 Von Stedingk, M., 363
 Voorhoeve, P. E., 574, 576
 Vorwohl, G., 171, 174, 184

- Voshida, F., 127
 Voss, H., 574
 Voss, J. C., 102
 Vrbová, G., 582
 Vuorinen, Y., 161
 Vyklický, L., 582
- W
- Wacker, A., 390
 Wada, K., 389, 390
 Wagman, I. H., 535, 537, 580, 592
 Wagner, H., 498, 505
 Wagner, H. G., 436, 438, 451, 456, 465, 517, 521, 523, 524, 536
 Wagner, H. N., Jr., 115, 122
 Wagner, J. W., 333
 Wagner, M. L., 301
 Wagner, S., 170, 171, 181
 Wahid, M. A., 359
 Wahren, J., 236
 Wahrman, J., 390
 Waisman, H. A., 102
 Wakabayashi, K., 330
 Waksman, B. H., 216
 Walaas, E., 598
 Walaas, O., 598
 Walberg, F., 590, 591
 Wald, G., 450, 538, 539
 Walder, D. N., 238
 Walder, D. P., 128
 Waldhausen, J. A., 234
 Walker, A. E., 561, 588
 Walker, D. G., 357, 359
 Walker, R. J., 101
 Walker, R. L., 282
 Wall, B., 190
 Wall, P. D., 438, 439, 544, 554
 Wallace, A., 304, 306
 Wallace, A. G., 280
 Wallace, M. E., 205
 Wallach, D. F., 39, 40
 Wallach, S., 356
 Wallenius, G., 171
 Waller, H. J., 433, 436
 Waller, M., 29
 Walser, M., 364
 Walsh, J. A., 245
 Walter, D. O., 559, 560
 Walter, W., 559
 Waltman, B., 575
 Wang, C. H., 94
 Wang, G. H., 227, 593
 Wang, H., 264
 Wang, H. C., 395
 Wang, S. C., 129, 227, 228
 Wangel, A. G., 160
 Wangenstein, O. H., 163
- Warburg, O., 6
 Ward, A. A., Jr., 579, 601
 Ward, D. N., 314, 320, 326, 327, 328, 330, 338
 Ward, S., 156
 Warfield, D., 505
 Washington, R. J., 159
 Washizu, Y., 421
 Wasserman, K., 121, 206
 Wasserman, R. H., 364, 365
 Watanabe, K., 233
 Watanabe, S., 557
 Watanabe, T., 440, 441, 444, 498
 Watase, S., 514, 515, 516, 517
 Waterman, T. H., 517, 533
 Watlington, C. O., 35
 Watson, C. S., 504, 505
 Watson, M. R., 103
 Wattiaux, R., 359
 Watts, D. C., 107
 Waugh, W. H., 204
 Wayland, H., 240, 242
 Weatherford, T., 199, 202, 204
 Webb, M., 359
 Weber, E., 306
 Webster, D. B., 491
 Webster, F. A., 492
 Webster, W. R., 443, 450, 549
 Weed, R. I., 50
 Weidman, S., 297
 Weidner, K., 106
 Weigand, K. H., 280, 281, 283
 Weight, E. M., 30
 Weil, M. H., 234
 Weinbach, E. C., 92
 Weinbrenner, H., 90
 Weingarten, M., 543
 Weinland, H., 90
 Weinstein, H., 30, 51
 Weinstein, P. P., 92
 Weinstein, S. A., 131, 133
 Weir, W. C., 394
 Weisberg, H., 160
 Weiss, A., 161
 Weiss, A. H., 601
 Weiss, L., 77, 78, 200
 Weiss, P., 66, 74, 356
 Weiss, R. M., 301
 Weissman, G., 359
 Welker, W. I., 503
 Wells, L. J., 342
 Welsh, J. H., 103
 Welty, J. D., 106
 Wendall Smith, C. P., 375
 Wenglarz, R. A., 226
 Wenzel, B. M., 428
 Werner, B., 215
- Werner, G., 430, 432, 433, 434, 435, 436, 549
 Wertheim, G., 92
 Wessler, S., 277
 West, J. B., 113, 121, 124, 127
 West, J. W., 271
 West, R. O., 242
 Westall, R. G., 350, 353
 Westbury, D. R., 576
 Westerman, R. A., 61, 62, 71
 Westernof, N., 226
 Weston, P. B., 506
 Wever, E. G., 490, 492
 Wezler, K., 283, 284
 Whalen, R. E., 375
 Whalen, W. J., 243
 Wheeler, H. O., 28, 29
 Wheeler, K. P., 39
 Whelan, R. F., 245
 Whitcomb, M. A., 443, 444, 448, 449, 450, 499
 White, A. A., 355
 White, F. N., 245
 White, W. F., 340
 Whitehead, R. W., 240
 Whitfield, I. C., 443, 444, 445, 446, 447, 476, 490, 497, 564
 Whitlock, D. G., 561
 Whitlock, R. T., 28, 29
 Whittam, R., 21, 39, 41, 42, 48
 Whittow, G. C., 236
 Widdicombe, J. G., 117, 131
 Widnell, C. C., 389
 Wido, M., 359
 Widrow, S. H., 363, 364
 Wiederhelm, C. A., 239
 Wiesel, T. N., 444, 447, 452, 458, 460, 462, 470, 471, 472, 473, 474, 475, 476, 550
 Wiesendanger, M., 561
 Wiesman, G. G., 231
 Wigglesworth, V. B., 169, 184, 185, 187, 189
 Wilber, K. M., 92
 Wilbrandt, W., 21, 24, 37
 Wilcken, D. E., 279
 Wiley, J. S., 48
 Wilcken, D. E. L., 122, 287
 Wilhelm, A. E., 329
 Wilhoft, D. C., 103
 William, J., 25
 Williams, D., 394
 Williams, G., 210
 Williams, G. A., 355
 Williams, H. L. L., 393
 Williams, J. A., 118, 119
 Williams, J. C. P., 290
 Williams, J. F., 283

- Williams, T. D., 576
 Williams, W. O., 460
 Williams-Ashman, H. G., 390
 Williamson, H. E., 39
 Willis, J. S., 29
 Willis, W. D., 72, 413, 547
 Willman, V. L., 237
 Wilska, A., 530
 Wilson, D. L., 242
 Wilson, J. D., 390
 Wilson, J. H., 577
 Wilson, M. F., 229
 Wilson, N. J., 116
 Wilson, R., 219
 Wilson, V. J., 580
 Wiltbank, J. N., 381
 Windhager, E. E., 25
 Winegrad, S., 293
 Winer, A. D., 338
 Wingo, W. J., 105
 Wingrove, R. C., 233
 Winkler, M., 36, 38
 Winograd, S., 546
 Winter, A. L., 559
 Winter, D. L. N., 433
 Winter, P., 490
 Wirsen, C., 573
 Wirz, H., 189, 192
 Wise, M. E., 289
 Witkovsky, P., 433
 Witte, C. L., 213
 Wodinsky, J., 488
 Wolbarsht, M. L., 531-42;
 438, 451, 456, 465, 518,
 521, 526
 Woldring, S., 132
 Wolf, A. V., 177
 Wolf, G. L., 128
 Wolf, H. P., 240, 245
 Wollack, C. H., 504
 Wollenberger, A., 40, 261,
 305
 Wolner, E., 263
 Wolpert, L., 78, 81
 Wolsk, D., 497
 Wolstencroft, J. H., 547,
 593
 Wolstenholme, G. E. W.,
 374, 375
 Wong, J. T. F., 21, 22
 Woo, C.-Y., 241
 Woo, J., 50
 Wood, E. H., 226, 237,
 290
 Wood, J. B., 233
 Wood, L., 488
 Wood, R. E., 34
 Woods, J. F., 361
 Woodward, E. R., 145, 150
 Wool, I. G., 33
 Wootton, J. M., 99
 Worden, F. G., 502
 Workman, J. M., 124
 Wormsley, K. G., 146, 150,
 156, 157
 Wright, E. M., 29, 30
 31
 Wright, H. N., 506
 Wright, L. D., 99
 Wunsch, C. W., 302
 Wurster, R. D., 226, 231,
 236
 Wüstenfeld, E., 495
 Wyatt, G. R., 89, 90,
 104
 Wyke, B., 586
 Wynn, C. H., 359
 Wynn, G. G., 211
 Wynn, R. A., 211
 Wyte, S. R., 284

 X
 Xhonneux, R., 268

 Y
 Yakulis, V. J., 355
 Yalow, R. S., 314, 315, 316,
 317, 353, 355
 Yamada, H., 115
 Yamagishi, S., 248
 Yamamoto, W. S., 129,
 130
 Yamanaka, J., 273, 274
 Yamanaka, T., 581
 Yamashiro, D., 328
 Yamazaki, E., 325, 328
 Yanagisawa, N., 562, 578,
 601
 Yasuda, M., 339
 Yasumasa, I., 90
 Yasuno, T., 498
 Yates, C. W., 357, 360
 Yeandle, S. S., 513-42;
 519, 520, 521, 522, 525,
 536, 537
 Yeh, S.-Y., 127
 Yellin, H., 582
 Yendt, E. R., 362
 Yoda, A., 40, 43
 Yokoe, Y., 90
 Yokota, T., 407, 414, 439,
 545, 562
 Yoshida, F., 127
 Yoshii, N., 552
 Yoshikawa, H., 48, 127
 Yoshinaga, K., 381
 Youmans, W. B., 228
 Young, J. M., 130, 132,
 133
 Young, J. Z., 550, 552
 Young, R., 341, 350, 352,
 354
 Yurchak, P. M., 265
 Yuwiler, A., 554

 Z
 Zaboieva, N. V., 501
 Zachariae, F., 378
 Zahavi, A., 390
 Zaleski, E. J., 273
 Zalusky, R., 30
 Zama, K., 98
 Zamorano, B., 343
 Zanchetti, A., 234
 Zandee, D. I., 96
 Zander, H. V., 45
 Zappacosta, S., 105
 Zardini, P., 124
 Zarrow, M. X., 333
 Zaterka, S., 149, 156
 Zbrozyna, A. W., 228,
 563
 Zechman, F. W., 134
 Zelená, J., 579, 582
 Zerah, K., 176
 Zetterquist, S., 236
 Zetterström, B. E. M., 276,
 304, 306
 Zia-Wohlrat, P., 170, 171,
 176
 Zierler, K. L., 34
 Zieske, H., 122, 235, 281,
 282
 Zieske, H., Jr., 233
 Zijlstra, W. G., 286
 Zilvermit, D. B., 6
 Zimmerman, B. G., 237,
 245
 Zimmerman, D. R., 381
 Zimmermann, R. R., 564
 Zobl, E. G., 243
 Zoll, P. M., 277
 Zoller, H. S., 98
 Zotti, E. F., 304, 306
 Zuberbühler, R. C., 261
 Zull, J. E., 363, 365
 Zweifach, B. W., 241
 Zwicker, E., 506
 Zwislocki, J., 494

SUBJECT INDEX

A

- Abalone
 - excretion in, 170-72, 174, 180
- Acanthochites fascicularis
 - excretion in, 183
- Acclimatization
 - circulation during, 235-36
- Acetylcholine
 - in cardiac conduction, 302
 - on circulation, 246
 - in gastrin release, 147
 - at neuromuscular junctions, 405, 407
- Acetylcholinesterase
 - pulmonary distribution of, 122
- Acetylsalicylic acid
 - and gastritis, 161
- Achatina fulica
 - excretion in, 170, 173-74, 176-77, 179, 181
- Acid-base measurement
 - current concepts of, 113-14
- ACTH
 - see Adrenocorticotrophic hormone
- Adenohypophysis
 - hypothalamic control of, 313-48
 - introduction to, 313-14
 - secretion of ACTH, 340-45
 - secretion of follicle-stimulating hormone, 338-40
 - secretion of growth hormone, 314-20
 - secretion of luteinizing hormone, 329-38
 - secretion of thyrotropin, 320-29
- Adenosine
 - in coronary circulation regulation, 259-60
- Adenosine triphosphatase
 - and membrane transport, 38-44
 - inhibitors of, 39-40
 - model of, 44
 - phosphorylated intermediate of, 41-44
 - purification of, 40-41
- Adenosine triphosphate
 - on circulation, 246
- Adrenal cortex
 - biochemistry of corticoidogenesis in, 342
- Adrenalectomy
 - circulatory effects of, 234-35
- Adrenal hormones
 - on membrane transport, 34-35
- Adrenocorticotrophic hormone (ACTH)
 - bioassay for, 343
 - extra-adrenal effect of, 343
 - hypothalamic releasing factor for, 345
 - secretion of, 323-24, 340-45
 - feedback control of, 343-44
 - in midbrain transection, 340-41
 - by transplanted pituitary fragments, 340
- Aedes aegypti
 - excretion in, 187
- Agammaglobulinemia
 - lymph in, 217
- Alanine
 - comparative metabolism of, 101
- Aldosterone
 - on membrane transport, 34-35
- Alkaline phosphatase
 - in gastric mucosa, 144
- Alveolar cells
 - in surfactant synthesis, 114-15
- Ambystoma tigrinum
 - excretion in, 174, 177
- Amino acids
 - comparative metabolism of, 100-8
 - amino acid pools, 100-2
 - aromatic and heterocyclic amino acids, 102-4
 - sulfur amino acids, 104-6
 - urea cycle, 106-8
 - membrane transport of, 29-33
 - specificity of transport of, 22-23
- γ -Aminobutyrate
 - binding of, 51
- γ -Aminobutyric acid
 - comparative metabolism of, 100-1
 - on Limulus eye, 529
 - membrane transport of, 30
 - on synaptic membranes, 405-6
- p-Aminohippurate
 - membrane transport of, 29
- Aminoisobutyrate
 - transport into Streptomyces, 36
- Aminonucleoside
 - on membrane transport, 39
- Amphibia
 - bearing by, 489
 - limb transplantation in, 65-70
 - lymphaticovenous communication in, 205-6
 - urea cycle in, 107-8
- Anamnia
 - hearing anatomy and function of, 489
- Anastomoses
 - anatomy and histology of, 114
 - interarterial, 276-78
- Androgens
 - testicular atrophy following, 339
- Anemia
 - see Pernicious anemia
- Angiotensin
 - on coronary circulation, 263, 271, 275
 - on systemic circulation, 228, 245
- Annelids
 - amino acid metabolism in, 105-6
 - carbohydrate metabolism in, 90
 - cholesterol biogenesis in, 99
- Anodonta
 - carbohydrate metabolism in, 90
 - excretion in, 170, 173-74, 177-79
- Anoxia
 - on cardiac norepinephrine, 305-6
 - on glucose uptake, 32
- Ant
 - hearing by, 486
- Antronomus grandis
 - lipid metabolism in, 96
- Aplysia
 - habituation of neurons of, 555

- heterosynaptic facilitation
in, 416-17
- Aplysia californica
excretion in, 174
- Apyrase
problems of, 40-41
- Arbutin
membrane transport of,
29
- Arginine
comparative metabolism of,
107
- Arion ater
excretion in, 174
- Arm
circulation in, 244-46
- Arteries
elastic modulus of, 239
- Arterioles
innervation of, 276
- Arthropods
carbohydrate metabolism in,
90
sound production and percep-
tion in, 485-89
- Ascaris lumbricoides
carbohydrate metabolism of,
88, 92
- Ascites
chylous
anatomy, physiology, and
genetics of, 205
induction of, 204
lymphatics in, 203-5
- Ascorbic acid
membrane transport of,
30
- Ascorbic acid depletion test
see Ovarian ascorbic acid
depletion test
- Asphyxia
circulatory effects of, 229-
30
- Attention
definition of, 429
mechanisms of, 545
- Atomic energy
peaceful uses of, 15-18
- Auditory cortex
ablation studies of, 445-
46
functional organization of,
444-45
and hearing, 500-2
ablation experiments,
503
and space perception, 448
stimuli of, 547
temporal discharge patterns
of, 450
- Auditory nerve
see Nerve, auditory
- Australorbis glabratus
glycogen of, 89
- Autoimmunity
and gastric diseases, 160-
61
- Avis
see Birds
- Azide
on membrane transport,
40
- B**
- Barium
myocardial pacemaker ef-
fects of, 300-1
- Baropacing
for hypertension, 233
- Baroreflexes
and ventilation, 130
- Basal ganglia
motor effects of, 598-601
- Bats
auditory neurons of, 447
CNS function in, 493
sonar system of, 487, 492-
93
- Behavior
and brain waves, 557-60
sexual, 375
- Bilirubin
on membrane transport,
40
- Billion
definition of, 7
- Bioacoustics
inventory of, 485
- Birds
hearing of, 488-90
acoustic behavior, 488
acoustic orientation,
492
- Blood
acid-base balance of, 128
gas transport in, 127
- Blood flow
and gastric secretion, 152-
53
and ventilation, 123-25
see also Circulation
- Blood vessels
coronary
anatomy of, 277-79
innervation of, 276
isolated
circulation in, 239-41
stretch response of,
240
vasomotor fibers of, 237
see also specific blood ves-
sels
- Body size
and feed utilization, 1-2
- Bombyx
metabolism of, 95
- Bone
calcitonin activity in, 356-
57
collagenolytic factor in,
359
conduction
and hearing, 494
- effect of parathyroid hor-
mone on, 357-63
resorption of, 358
- Bradykinin
circulatory effects of, 245-
46
coronary effects of,
263
- Brain
environment-induced changes
in, 553-55
natural steady-potential
gradients of, 555-56
polarizing currents in, 556-
57
shifts in steady potential of,
555-57
as store of environmental
code, 550-52
waves
and behavior, 557-60, 566-
67
see also Central nervous
system; and specific
brain regions
- Brainstem
and circulation, 229
- Branchiostoma
excretion in, 172
- Breathing
consciousness of, 132
control of, 128-32
see also Ventilation
- Breathlessness
conference on, 114, 132
- Bronchoconstriction
physics of, 117
- Bumps
quantum, 519-21
- C**
- Caenorhdbitis briggsae
amino acid biosynthesis in,
101
- Calcitonin
isolation and chemistry of,
356
site of action of, 356-57
- Calcium
absorption of
mechanism of vitamin D
effect on, 365
on cardiac contraction, 292-
98
in cell aggregation, 77-
78
homeostasis
parathyroid hormone role
in, 349
and membrane transport,
42
in mitochondria, 44-46
on myocardial oxygen con-
sumption, 265, 292
in nerve cell, 404
and synaptic delay, 409-10

- and transmitter release, 408-10
 - Calliphora
 - N-acetyldopamine formation by, 103
 - Calliphora erythrocephala
 - lipid metabolism of, 96, 100
 - Caloria
 - semantics of, 7-8
 - Cancer borealis
 - excretion in, 183
 - Capillaries
 - filtration coefficient of, 243
 - lymphatic
 - permeability of, 197
 - structure of, 201-2
 - transcapillary exchange, 243-44
 - Carbochromene
 - on coronary circulation, 264
 - Carbohydrates
 - comparative metabolism of, 88-95
 - citrate cycle, 94-95
 - glucose, 91-94
 - polysaccharides, 88-90
 - role of parathyroid hormone in, 360-61
 - Carbon dioxide
 - and blood acid-base balance, 128
 - Carbon monoxide
 - pulmonary transfer of, 125-26
 - Carcharinus leucas
 - hearing by, 488
 - Carcinoma
 - gastric
 - secretions with, 144, 157
 - lymphangiographic diagnosis of, 207
 - Carcinus maenas
 - excretion in, 170, 174, 179
 - glycogen of, 89
 - Carotid artery
 - occlusion response of, 228
 - Carotid sinus
 - and systemic circulation, 232-33
 - Cat
 - hearing capacity of, 504-5
 - see also Kitten
 - Catecholamines
 - cardiac distribution of, 304-7
 - on coronary circulation, 261, 266
 - Cattle
 - freemartin condition of, 392-94
 - Cebus monkey
 - color vision in, 452-53
 - Cells
 - adhesion of
 - see reaggregation of desmosomes of
 - function of, 78
 - intracellular transport barriers of, 26
 - reaggregation of, 73-81
 - degree of specificity of, 74-75
 - factors in, 75-77
 - mechanisms of, 77-81
 - orthokinetic flocculation in, 79
 - thermodynamics of, 79-80
 - single
 - transport in, 26-28
 - Cellulases
 - comparative studies of, 90
 - Cellulose
 - comparative metabolism of, 90
 - Central nervous system
 - afferent mechanisms and perception, 427-84
 - hearing, 440-50
 - input control and pain perception, 438-39
 - introduction to, 427-29
 - somatic afferent pathway, 429-39
 - vision, 450-76
 - brain's record of past, 550-52
 - brain waves and behavior, 557-60
 - conditioning of single neurons, 552-53
 - developmental histology of, 70
 - efferent control of afferent transmission, 543-45
 - formation and reformation of
 - afferent connections, 59-65
 - efferent connections, 65-73
 - gross changes in brain from environment, 553-55
 - higher functions of, 543-72
 - experimental technique, 564
 - summary of, 564-67
 - impulse coding in neurons, 548-50
 - modulation of cell bodies of, 66
 - motor mechanisms, 573-606
 - basal ganglia influences, 598-601
 - cerebellar influences, 595-98
 - control of discrete movements, 587-78
 - control of fusimotor activity, 576-78
 - control in specialized muscles, 582-87
 - fusimotor effects on afferent discharge, 575-76
 - interfusil fibers, 573
 - posture control, 592-95
 - proprioceptive input effects, 578-82
 - segmental, 573-87
 - spindle innervation, 573-78
 - supraspinal, 587-602
 - thalamic influences, 601-2
 - muscle and joint feedback, 563-64
 - output system of, 560-63
 - pyramidal tract, 560-62
 - subcortical control of movements, 562-63
 - reticular formation and polysensory neurons, 545-48
 - significance of steady-potential shifts, 555-57
 - and systemic circulation, 226-31
 - as target of sex hormones, 375
 - see also Nerve; and Nervous system
- Cerebellum
 - damage and ablation studies of, 595-97
 - inhibitory postsynaptic potentials of, 544
 - on motoneuron activity, 595-98
 - neuronal circuit diagrams of, 563, 567
 - spindle control by, 577-78
- Cerebral cortex
 - circulatory role of, 226
- Cerebrospinal fluid
 - and ventilation regulation, 114
- Cerebrum
 - circulation in, 248
- Cetacea
 - hearing in, 491
- Chemo-osmotic coupling
 - in membrane transport, 46-47
- Chimaerism
 - current concepts of, 392-95
- Chlordiazepoxide
 - and gastritis, 164
- Chloride

- invertebrate filtration of, 176
- p-Chloromercurobenzoate to inhibit ATPase, 39
- Cholecystokinin and gastric secretion, 150
- Cholesterol comparative metabolism of, 98-100
- Choline membrane transport of, 29
- Cholinesterase environment effects on, 553
- Chorionic gonadotropin prolongation of menstrual cycle of, 380
- Chromosomes abnormalities of affecting reproduction, 390-92 and fetal sex determination, 375 lymphocytes in study of, 221-22 technique of analysis of, 222
- Chylothorax lymphangiographic evaluation of, 207
- Cicada hearing by, 487
- Cilia, respiratory structure and function of, 114
- Circle of Willis circulation through, 226
- Circulation, coronary microcirculation, 270-79 anatomy and collateral circulation, 276-79 innervation of vessels, 276 measurement methodology, 272-75 venous pressure, 275-76 myocardial energetics, 265-70 hemodynamics of oxygen consumption, 265-67 and increased work loads, 267-69 nonbeating heart, 269-70 during occlusion, 271-72 regulation of, 259-65 adenosine theory of, 259-60 adrenergic, 259-61 chemoreceptor theory of, 259-60
- Circulation, pulmonary, 113-14, 120-23 hemodynamics, 120-22 microcirculation, 122-23 right heart, 122
- Circulation, systemic, 225-58 autoregulation of, 242-43 baroreceptor mechanisms, hypotension, 234-35 central regulation of, 226-31 medulla and hypothalamus, 227-30 spinal cord, 230-31 chemoreceptors, 235 growth hormone in, 319 influence of exercise on, 236-37 isolated blood vessels, 239-41 reactive hyperemia, 241-42 regional, 243-48 extremities, muscle and skin, 244-46 gastrointestinal, 246-47 heart, 247 intracranial, 248 kidney, 247-48 liver, 247 transcapillary exchange, 243-44 and respiration, 123 sympathetic outflows, 231-32 terminal innervation, 237-38 vascular changes and temperature regulation, 225, 235-36
- Cirrhosis lymphatic role in, 205, 215
- Citrate and bone metabolism, 360
- Citrate cycle comparative aspects of, 94-95
- Coagulation factors of in serum and lymph, 215
- Cocaine on embryonic heart, 299
- Cochlea efferent control of hair cells in, 543-44, 564 nervous inhibition in, 498
- Cochlear nucleus inhibitory response areas of, 441-42 temporal discharge patterns of, 450 tuning curves of, 442
- Cockroach cholesterol metabolism in, 99
- excretion in, 185, 190 see also *Periplaneta americana*
- Coelomosac excretory role of, 171-73
- Collagen synthesis of parathyroid hormone role in, 357, 362
- Comparative physiology of invertebrate excretory organs, 169-96 endocrine regulation of, 190 extrarenal implications, 190-92 filtration-reabsorption organs, 170-84 introduction to, 169-70 secretory kidneys, 184-90 summary, 193 of metabolism, 87-112 amino acids, 100-8 carbohydrates, 88-95 lipids, 95-100
- Computers in respiratory research, 134
- Conditioning behavioral simulation of, 416 of single neurons, 552-53
- Cones, visual types of, 540-41
- Contraceptives chemical and mechanical, 374
- Corpus geniculatum mediale hearing role of, 500-1, 503-4
- Corpus luteum embryonic maintenance of, 387 regression of prevention of, 386-87 uterine role in, 384-89 trophic control of, 380-84
- Corpus striatum conditioning role of, 553, 563
- Corrix dentipes excretion in, 185
- Cortex behavioral role of, 558-59 neural coding role of, 550 visual neurons in, 469-71
- Corticotropin-releasing factor nature and purification of, 344-45
- Corynebacterium pyogenes to prolong corpus luteum, 387

- Crab
cholesterol metabolism in, 99
excretion in, 170, 172, 174-75, 178-79, 183
horseshoe
see Limulus
- Cranium
circulation in, 248
- Crayfish
antennal gland of, 169, 179-81
excretion in, 171-72, 175-76, 179-83
synaptic membranes of, 405
- Crickets
hearing by, 488
- Crustaceans
excretion in, 169-70, 172, 174-76, 178-83
hearing by, 488
- Cryptochiton stelleri
excretion in, 174
- Cyprinus carpio
carbohydrate metabolism in, 90
- D**
- Dermestes vulpinus
cholesterol metabolism of, 99
- Diabetics
reactive hyperemia of, 242
- Diaphragm
lymphatics of, 198, 202
respiratory reflexes in, 585-86
- Diastole
tone of, 283-85
- Diencephalon
circulatory role of, 228
- Differentiation
cellular, 59-86
- Diffusion
exchange, 23-24
pulmonary capacity for, 125-27
- Digestion
see Gastric juice and secretion
- Diisopropylfluorophosphate
to inhibit ATPase, 39
- Dipyridamole
and coronary circulation, 259-60, 264, 271, 276
- Diving
physiology of, 114
- Dixippus
excretion in, 185-87
- Dolphins
echo-orientation ability in, 489, 492
- Dopamine
cardiac effects of, 304-5
- and tremor, 599
- Dorsal horn
and pain perception, 544
- Duodenal ulcer
gastric secretion with, 144, 150, 152, 156-59, 164-65
- Duodenum
and gastric secretion, 149-50
- Dysdercus
excretion in, 185-86
- E**
- Ear
inner
anatomy and histochemistry of, 494-96
electric phenomena of, 496-98
harmonic distortion
source in, 497-98
as mechanoreceptor, 486
middle
electrical model of, 494
psychophysics of, 505-7
physiology of, 493-507
sound-transmitting apparatus of, 494
see also Hearing
- Earthworm
excretion in, 169, 181, 184
- Eccentric cell
of Limulus eye, 515-17, 523-25
- Ecdysone
formation of, 100
- Echinococcus granulosus
carbohydrate metabolism in, 92-93
- Edema
lymphangiographic evaluation of, 207-8
pulmonary
see Pulmonary edema
- Ehrlich ascites cells
exchange diffusion in, 23-24
parathyroid hormone effect on, 359
transport mechanisms in, 31-32, 35, 39
- Elasmobranchs
pericardial fluids of, 211
- Electroencephalogram
and behavior, 557-60
pattern coincidence hypothesis, 560
- Electrolytes
invertebrate filtration of, 176-79
transport of, 24-52
see also specific ones
- Electroretinogram
of Limulus eye, 518, 530
- Eledoisin
on coronary circulation, 263
- Embryo
-uterus relationships, 376
- Endocrines
and excretion, 190
see also Hormones
- Endothelium
size of gaps in, 200
- Energy
efficiency of utilization of, 1
semantics of, 5-6
- Enterogastrone
and gastric secretion, 150-52
- Environment
central effects of, 553-55
- Epinephrine
blood vessel response to, 239-40
cardiac distribution of, 305
in cardiac excitation-contraction, 293-94, 303
on coronary circulation, 262-63, 266
on glucose absorption, 35
- Epithelia
ion exchange pump in, 24-26
- Equidae
chromosome numbers of, 392
hybrid sterility in, 391-92
- Eriocheir sinensis
excretion in, 180
- Estradiol
distribution and effects of, 334-35, 337
- Estrogens
and luteinizing hormone release, 335
mechanism of action of, 389-90
- Estrous cycle
luteinizing hormone levels in, 332-35
- Ethacrinic acid
in membrane transport, 39
- Ethyl alcohol
on gastric secretion, 162
on Limulus eye, 529
- N-Ethylmaleimide
to mark transport sites, 51
- Excretion

comparative, 169-96
Exercise
 circulation during, 226, 230,
 236-37, 244-46
 myocardial energetics dur-
 ing, 267-69
 ventilation during, 124
Exposure chamber
 description of, 133
Eye
 compound
 reviews of, 513
 grafting experiments with,
 56-67
 lateral
 anatomy of, 514-16
 of *Limulus*
 visual processes in, 513-
 42
 movement of
 in coding and analysis,
 458
 rotation experiments with,
 60-61
 strabismus, 476
 see also Vision; Visual
 system

F

Fertility
 control and enhancement of,
 374
Fetus
 circulation in, 393-94
 effects of labor on, 374
 perinatal physiology of,
 114
 peritoneal transfusion of,
 202-3
 respiratory movements in,
 203
 sex determination of, 375
Fibrillation
 multifocal theory of, 299
Fick principle
 of coronary circulation
 measurement, 273-74
Filtration
 by invertebrates, 170-
 81
 electrolytes, 176-79
 evidence for, 171-73
 nonelectrolytes, 175-76
 rates of, 173-75
Fishes
 hearing in, 488-89,
 492
Flowmeter, electromagnetic
 and coronary circulation,
 272, 290-91
Flux rate
 definition of, 6
Follicle-stimulating hormone
 purification of, 338-39
 secretion of, 338-40
 releasing factor, 339-40

Freemartins
 fertility studies of, 392-
 94
Fumarate
 anaerobic formation of,
 92
Furosemide
 on membrane transport,
 39

G

GABA
 see γ -Aminobutyric acid
Galactogen
 comparative metabolism of,
 90
Gall bladder
 fluid transport in, 29
Gamete
 chemistry and physiology of,
 374
Gammarus
 sodium reabsorption by,
 177
Gas analysis
 new developments in, 133
Gas chromatography
 of blood, 133
Gastric acid
 redox pump in formation of,
 48-49
Gastric juice and secretion,
 141-68
 acid and fat inhibition of,
 151
 cholecystokinin role in, 150
 clinico-physiologic aspects
 of, 157-65
 atrophic gastritis, 157-
 61
 gastric analysis, 157
 superficial gastritis, 161-
 62
 constituents of, 141-44
 enzymes, 144
 hydrochloric acid, 141-
 42
 mucus, 143
 pepsin, 142
 protein, 143-44
 control of, 144-57
 gastrin, 145-49
 histamine actions, 153-57
 interdigestive phase of,
 152
 intestinal phase of, 149-
 52
 and mucosal blood flow,
 152-53
 unitarian concept of, 144-
 45
 enterogastrone role in, 150-
 51
 secretin role in, 150
 vagotomy effect on, 151-
 52

Gastric mucosa
 cells of, 141
 enzymes in, 144
 transport in, 29, 39
Gastric ulcer
 etiology of, 164
 secretions with, 144, 156,
 158, 164
Gastrin
 actions of, 148-49
 compared to histamine, 153-
 54, 160
 history, isolation, and iden-
 tification of, 145-47
 mechanism of release of,
 147-48
Gastritis
 gastric secretion with
 atrophic, 157-61
 superficial, 161-62
Gastrointestinal tract
 parathyroid hormone role
 in, 364-65
Gastrone
 evidence for, 147
Genital tract
 biochemistry and microbio-
 logy of, 374
Geocareinus lateralis
 excretion in, 174
Gestagens
 clinical aspects of, 374
Gestation
 early stages of, 375
Glottis
 motor mechanisms of, 586-
 87
Glucocorticoids
 on membrane transport,
 35
Glucose
 active transport of, 50
 comparative metabolism of,
 91-94
 and gastric secretion, 144
 gluconeogenesis, 93
 and growth hormone, 315-
 18
 uptake of
 insulin effects on, 33-34
 β -Glucuronidase
 in gastric mucosa, 144
Glutamate
 membrane transport of, 30
Glutamic acid
 comparative metabolism of,
 100-1
**Glutamic oxaloacetic trans-
 aminase**
 in gastric mucosa, 144
Glutamic pyruvic transaminase
 in gastric mucosa, 144
Glycogen
 comparative metabolism of,
 88-90
 isolation of, 88
Goats

- intersexuality of, 391
- Gonadotropins
 - and progesterone synthesis, 380-83
- Goniopsus cruentatis
 - excretion in, 174
- Graafian follicle
 - endocrinology of, 378
- Granulosa cells
 - secretory role of, 378-79
- Grasshopper
 - eyes
 - quantum bumps of, 537
- Growth
 - cellular, 59-86
- Growth and differentiation, 59-86
 - of afferent CNS connections, 59-85
 - conclusions, 81-82
 - of efferent CNS connections, 65-73
 - selectivity in reaggregating cell systems, 73-81
- Growth hormone (somatotropin)
 - human
 - isolation and amino acid sequence of, 314
 - plasma circulation of, 317
 - radioimmunoassay of, 315
 - releasing factor for, 314, 316, 318-20
 - purification of, 319-20
 - secretion of, 314-20
 - factors modifying, 316-17
 - hypoglycemic factors in, 315-18
 - neural control of, 315
 - site of receptors for, 317-18
 - tibia cartilage assay of, 318, 320
- Guanethidine
 - cardiac pacemaker effect of, 229
- Guanidine
 - on membrane transport, 40
- Guinea pig
 - hearing by, 505
 - inner ear of, 485

H

- Haliotis refescens*
 - excretion in, 170-72, 174, 180
- Hand
 - circulation in, 245
- Hearing
 - afferent mechanisms of, 440-50
 - auditory pattern perception, 445-47
 - auditory space perception, 447-50
 - first- and second-order neurons, 440-43
 - functional organization of auditory cortex, 444-45
 - higher-order neurons, 443-44
 - temporal discharge patterns, 450
 - central pathways of, 498-503
 - auditory cortex, 500-2
 - auditory nerve and nucleus cochlearis, 498-99
 - efferent pathways, 502-3
 - inferior colliculus and corpus geniculatum mediale, 500
 - medulla, 499
 - comparative, 485-512
 - cytoarchitecture of disorders of, 495
 - experimental anatomy and conditioning, 503-5
 - human acoustic localization, 486
 - introduction to, 485-86
 - invertebrate, 486-88
 - delimitation, 486
 - insects with song and hearing, 487-88
 - primitive insect forms of, 486-87
 - mammalian
 - hearing capacity, 504-5
 - peripheral and central mechanisms of, 486
 - physiology of ear, 493-507
 - acoustic behavior, 503-7
 - anatomy and histochemistry of inner ear, 494-96
 - central pathways of, 498-503
 - electric phenomena of inner ear, 496-98
 - sound-transmitting apparatus, 494
 - psychophysics of, 505-7
 - threshold determinations, 506-7
 - vertebrate, 488-93
 - acoustic behavior, 488-89
 - acoustic orientation, 491-93
 - anatomy and function, 489-91
 - vision parallels, 443-44
- Heart, 259-312
 - α - and β -receptors in, 260-63
 - arrest of, 295
 - congestive failure of lymphatic role in, 205, 211
 - coronary circulation, 247-48, 259-79
 - measurement methodology, 272-75
 - microcirculation and local distribution, 270-79
 - myocardial energetics, 265
 - regulation of, 259-65
 - diseases of
 - arterial anatomy in, 278
 - effect of exercise on, 236-37, 267-69
 - electrophysiology of, 296-307
 - automaticity, 298-301
 - catecholamine distribution, 304-7
 - conduction, excitation, and refractoriness, 301-4
 - ionic basis of, 296-98
 - embryonic chick, 298-300
 - excitation-contraction coupling, 291-96
 - role of ions in, 292-96
 - lymphatics of, 210-11
 - myocardial mechanics, 279-91
 - asynchronous contraction, 285-87
 - contractility, 279-81
 - diastolic tone, 283-85
 - influence of atrial systole, 282-83
 - interventricular balance, 287-88
 - reflex contractility changes, 281-82
 - regulation of ventricular volumes, 285-86
 - sounds, 288-89
 - nonbeating
 - energetics of, 269-70
 - norepinephrine stores in, 304-7
 - output measurement, 289-91
 - flowmeter, 290-91
 - tracer-dilution method, 289-90
 - transcutaneous, 291
 - oxygen consumption by, 265-67
 - pacemakers of, 299-301
 - and pulmonary circulation, 122
 - sounds of, 288-89
 - ventricular compliance of, 284-85
- Heidenhain pouch

- to study gastric secretion, 153-54, 162-63
- HeLa cells
 - parathyroid hormone response of, 359
- Helix pomatia*
 - carbohydrate metabolism in, 90
 - excretion in, 174
- Helminths
 - carbohydrate metabolism in, 89, 91-92
- Hemigrapsus nudus*
 - excretion in, 170, 179
- Hemodynamics
 - of pulmonary circulation, 120-22
- Hemoglobin
 - gas transfer in, 127-28
 - invertebrate excretion of, 170
- Heteromyidae
 - hearing in, 491
- Heterothyreotrope factor
 - discovery and actions of, 321
- Hexobendin
 - on coronary circulation, 264
- Hippocampus
 - conditioning role of, 553
 - inhibitory postsynaptic potentials of, 544
- Histalog
 - and gastric secretion, 156-57
- Histamine
 - on circulation, 240, 242, 246
 - comparative metabolism of, 104
 - and gastric secretion, 153-57, 159-60, 165
 - chemostimulation of parietal cells, 154-55
 - compared to gastrin, 153-54
 - histalog, 156-57
 - stimulatory effects, 155-56
- Histidine
 - comparative metabolism of, 104
- Homarus americanus*
 - excretion in, 170, 176
- Hormones
 - assays of, 375
 - of pregnancy, 374
 - in reproduction, 374-75
 - sex
 - CNS as target for, 375
 - mechanism of action of, 274, 389-90
 - see also Endocrines; and specific ones
- Human chorionic gonadotropin
 - on progesterone synthesis, 380
- Hyalophara cecropia
 - glycogen synthesis in, 90
- Hybrids
 - sterility in, 391-92
- Hydrochloric acid
 - gastric formation of, 141-42
- Hydrocortisone
 - on membrane transport, 35
- Hydrogen
 - membrane transport effects of, 32-33, 46-47
 - and parathyroid hormone, 363, 365
- 5-Hydroxytryptamine (serotonin)
 - cardiac effects of, 206
- 5-Hydroxytryptophan
 - metabolic pathway of, 103
- Hymenolepis diminuta
 - carbohydrate metabolism of, 89, 91
- Hypercapnia
 - on coronary microcirculation, 271
- Hypertension
 - vasculature in, 239
- Hyperthermia
 - circulation during, 236
- Hypoglycemia
 - and growth hormone, 315
- Hypotension
 - baroreceptor mechanisms in, 234-35
- Hypothalamus
 - to control adenohypophysis, 313-48
 - introduction to, 313-14
 - secretion of ACTH, 340-45
 - secretion of follicle-stimulating hormone, 338-40
 - secretion of growth hormone, 314-20
 - secretion of luteinizing hormone, 329-38
 - secretion of thyrotropin, 320-29
 - ovulation inhibitor from, 338
 - and systemic circulation, 227-310
 - thyrotropic lesions of, 321-22
- Hypothermia
 - on cardiac conduction, 303
- Hypoxemia
 - on coronary microcirculation, 271, 275
- Hypoxia
 - cephalic
 - and myocardial contractility, 282
 - pulmonary vasoconstriction with, 122
- Hysterectomy
 - effect on corpus luteum, 384-85, 387-89
- I
 - Iggo corpuscle
 - mechanoreceptor, 432-33
 - Ileum
 - circulation in, 247
 - Immune response
 - thymus role in, 217-18
 - Implantation
 - extrauterine, 376-77
 - Infant
 - intrapertoneal transfusions in, 202
 - Inferior colliculus
 - hearing role of, 500, 502, 504
 - nerve cells of, 443
 - Inhalation
 - of particles and vapors, 114
 - Inositol
 - membrane transport of, 29
 - Insects
 - alimentary canal of, 187-90
 - amino acid metabolism in, 102-4, 107
 - carbohydrate metabolism in, 91
 - excretion in, 169, 184-90, 192-93
 - lipid metabolism of, 96-100
 - Malpighian tubule of, 169, 184-90
 - peripheral inhibition in, 405-6
 - primitive forms of hearing in, 486-87
 - song and hearing of, 487-88
 - sound localization by, 487
 - Insulin
 - on transport and permeability, 33-35
 - Intestine
 - circulation in, 246-47
 - fluid transport in, 29
 - and gastric secretion, 149-52
 - lymph pathways in, 206, 212
 - transport processes, 29, 31

- Intrinsic factor
and gastric secretion, 157-60
- Intubation
for gastric analysis, 158
- Invertebrates
excretory organs of, 169-96
hearing mechanisms of, 486-88
- 3-Iodothyronine
on transport processes, 35
- Iproveratril
on coronary circulation, 264
- Isoproterenol
on blood vessels, 241
cardiac effects of, 304
on coronary circulation, 256
- Isotopes
in agriculture, 17-18
- Isotopic tracers
history of, 15-16
- J
- Jejunum
circulation in, 247
- Junctions
electrotonic, 418-22
structure of, 418
- K
- Kallidin
on coronary circulation, 263
- Kangaroo rat
hearing in, 491
- Kidney
circulation in, 247-48
model of autoregulation of, 226
evolution of, 190-91
invertebrate, 169-96
secretory, 184-90
tubular transport in, 179-84
lymphatics of, 213-14
parathyroid hormone effect on, 357, 363-64
- Kitten
visual connections in, 65
visual deprivation studies of, 65, 475-76, 563
see also Cat
- Kleinfelter's syndrome
chromosomes in, 390
- L
- Lactation
nutrition during, 374
physiology of, 374
- Lactic dehydrogenase
in gastric mucosa, 144
- Lamellibranch
excretion in, 170, 173-74, 177-79
- Larynx
motor control of, 586-87
- Lateral line organ
innervation of, 489
- Learning
mechanism of, 545
model of, 553
- Leucine aminopeptidase
in gastric mucosa, 144
- Light, polarized
Limulus sensitivity to, 533
- Limbs, transplanted
myotypic response in, 65-70
- Limulus eye
adaptation by, 530-33
anatomy of, 514-16
diagram of, 515
eccentric cell of, 516
electrical response origins of, 518-27
early receptor potential, 518-19
electroretinogram, 518
model of, 525-27
nerve impulses, 523
ommatidial potential, 521-23
origin of potentials, 523-25
spontaneous potential fluctuations, 519-21
introduction to, 513-18
lateral inhibition in, 527-30
drugs blocking, 529
dynamic range and motion detection, 529-30
Mach-band phenomena, 466, 529
neural basis, 528-29
on-off and off responses, 530
qualitative relations, 527-28
self-inhibition, 528
median, ventral, and rudimentary, 517-18
plexus of, 516-17
polarized light sensitivity of, 533
quantum responses of, 533-37
bumps, 536-37
quantum-spike relations, 533-36
theoretical basis of, 533-35
reticular cells, 516
visual pigments and spec-
- tral sensitivity, 537-39
visual processes of, 513-42
- Linoleic acid
comparative metabolism of, 95
- Linolenic acid
comparative metabolism of, 95
- Lipemia
serum triglyceride as index of, 216
- Lipids
comparative metabolism of, 95-100
distribution of phospholipids, 98
steroids, 98-100
triglycerides, 95-98
lymphatic, 215-16
metabolism of
insulin effect on, 33
- Liver
circulation in, 247
lymphatics of, 204, 212-13
- Lobster
excretion in, 170, 176
- Locust
excretion in, 186, 188-89, 192
- Lumbricus terrestris
sodium reabsorption in, 177
- Lung
anatomy and histology of, 114
circulation in, 120-23
defense mechanisms of, 115
development of, 114
gas transfer in, 125-27
lymphatics of, 208-10
metabolism and energy requirement of, 114-15
oxygen tension of, 209
pressure-volume of, 117-18
specific tidal volume of, 123
-thoracic impedance measurement, 116
see also Pulmonary edema; Respiration
- Luteinizing hormone
luteotropic effects of, 381
mode of action of, 383-84
molecular individuality of, 320, 329
ovarian ascorbic acid depletion test for, 320, 330-34, 336
on progesterone synthesis, 380, 383
secretion of, 329-38
control of, 330-38

- releasing factor, 329,
335-38
and testicular atrophy,
339
- Luteinizing hormone-releasing
factor
characterization of, 329,
335-37
purification of, 337-38
- Lymph
cellular metabolism in, 214-
15
clotting of, 215
lipids of, 215-16
pulmonary
gas transport by, 128
- Lymphangiography
technique and applications
of, 207-8
- Lymphatics, 197-224
lymph, 214-16
lymphoid tissue, 216-22
absence of wasting in germ-
free animals, 219
circulation of lymphocytes,
219-21
humoral factor, 218-19
lymphocyte in culture,
221-22
thymic function, 216-17
thymus and immune re-
sponse, 217-18
regional, 208-14
heart and pericardium,
210-11
intestines, 212
kidney, 213-14
liver and pancreas, 212-
13
lung and pleura, 208-10
reproductive system,
214
spleen, 214
structure and function of,
197-208
in ascites, 203-5
lymphangiography, 207-
8
lymphaticovenous commu-
nications, 205-7
penetrability and permea-
bility, 197-202
transfusion by peritoneum,
202-3
- Lymphatic wall
electron micrographs of,
198-99
- Lymphedema
congenital
cause of, 208
- Lymphocytes
circulation of, 219-
21
culture of, 221-
22
sterilization of blood of,
220
- M
- Macaca (macaque monkey)
color vision in, 452-55
- Mach bands
explanation of, 428
in *Limulus* vision, 529
spatial-response curves of,
456
- Magnesium
on cardiac contraction-
excitation, 294-95
invertebrate concentration
of, 179
and membrane transport,
42-43
in mitochondria, 44
on parathyroid secretion,
355, 363, 365
transmitter block by, 408-
9
- Malpighian tubule
excretory role of, 169, 184-
90
- Mammals
echo-sound evaluation by,
492
hearing anatomy and func-
tion of, 491
physiology of ears of, 493-
507
reproductive behavior of,
376
sex determination in, 390
- Mammary gland
parathyroid hormone effect
on, 357
- Margaritana margaritifera
excretion in, 174
- Marsupials
corpus luteum maintenance
in, 389
hearing in, 491
- Mast cells
histamine in, 155
- Medial geniculate body
temporal discharge pat-
terns of, 450
- Median eminence
and ACTH secretion, 341-
42, 344
luteinizing hormone in,
386
- Medulla
hearing role of, 499,
503
and systemic circulation,
227-30
- Meissner's corpuscles
as mechanoreceptors, 430-
32
- Membrane transport, 21-
58
adenosine triphosphatase
role in, 38-44
inhibitors of, 39-30
model, 44
- chemical basis of, 49-51
binding of substrate, 51
marking of active sites,
51
mutarotase, 50
passive permeability,
49
SH groups, 49-50
sucrase, 50-51
electrical effects of, 24-
28
epithelia, 24-26
single cells, 26-28
energetic coupling of, 47-
49
feedback control of, 36-37
hormonal regulation of, 33-
35
adrenal hormones, 34-
35
insulin, 33-34
pyridoxal, 35
ion effects on, 29-33
H ions, 32-33
mechanism of sodium acti-
vation, 30-32
models of, 21-22
parathyroid hormone effect
on, 366
physical effects on, 37-
38
osmolality, 37-38
temperature, 38
specificity of, 22-23
amino acids, 22-23
sugars, 23
subcellular, 44-47
mitochondria, 44-47
nuclei, 47
trans effect, 23-24
and water movement, 28-29
29
- Memory
mechanisms of, 550-52,
565-66
- Menstrual cycle
prolongation of, 380
- Metabolism
and body size, 1-2
comparative, 87-112
amino acids, 100-8
carbohydrate, 88-95
introduction to, 87-88
lipids, 95-100
- Metaraminol
cardiac effects of, 306
- Methionine
comparative metabolism of,
104-6
 α -Methyldopa
cardiac effects of, 306
 α -Methyldopamine
cardiac effects of, 306
- Methylglyoxalbisguanylylhydra-
zone
transport of, 30
- Microorganisms

- unsaturated fatty acid bonds of, 97
- Mitochondria
 - transport role of, 44-47
- Mol
 - definition of, 7
- Mollusks
 - carbohydrate metabolism in, 90, 93
 - excretion in, 169-71, 173-74, 178-80, 183, 191, 193
 - filtration in, 169
 - synaptic membranes of, 405
- Mongoose
 - chromosome studies of, 390
- Monkey
 - deafferented limb experiments on, 563-64
 - freemartin condition in, 394
 - hearing capacity of, 504
- Motion
 - detection of, 529-30
- Movement
 - subcortical control of, 562-63
- Mucus
 - gastric, 143
- Mule
 - sterility of, 391-92
- Muscle
 - CNS feedback, 563-64
 - circulation in, 246
 - motor control in, 582-87
 - afferent, 573
 - diaphragm, 585-87
 - extraocular, 587
 - intercostal, 582-85
 - laryngeal muscles, 586-87
 - supraspinal mechanisms of, 587-602
 - reflexes of, 573-78, 582
 - stretch, 413-14
 - skeletal
 - peripheral inhibition in, 405
 - smooth
 - tetrodotoxin effect on, 404
- Mutarotase
 - membrane transport role of, 50
- Myocardium
 - energetics of, 265-70
 - mechanics of
 - see Heart
 - microcirculation in, 270-79
 - pacemaker activity in, 301
- Mytilus californicus
 - excretion in, 174
- N
 - NAD-H-cytochrome c reductase
 - in membrane transport, 40
 - Neocortex
 - inhibitory postsynaptic potentials in, 544
 - memory role of, 551-52
 - Neonate
 - effects of labor on, 374
 - pulmonary lymphatics of, 208
 - respiration in, 114
 - Nerve
 - cross-union experiments on, 72-73
 - reconnection mechanisms of, 61-62
 - regeneration of, 59-65, 70-73
 - Nerve, auditory
 - anatomy of, 490-91
 - and hearing, 498-99, 502
 - and nucleus cochlearis, 498-99
 - Nerve cells
 - acoustic, 498-501
 - action potential of
 - prolongation of, 402
 - afferent inhibition, 437-38
 - auditory, 440-44
 - in behavior, 557-58
 - ciliary ganglion
 - synaptic clefts of, 419
 - columnar arrangement of, 470-71, 473
 - conditioning of, 552-53, 566
 - cortical
 - topography of, 471
 - discharge patterns of, 549
 - electrical transmission
 - between, 418
 - electrotonic junctions of, 418-22
 - interactions between motoneurons, 421-22
 - excitatory postsynaptic potential of, 404-5
 - habituation in, 546
 - heterosynaptic facilitation in, 416-18
 - higher-order hypercomplex, 472
 - higher-order somatic afferent, 433-37
 - impulse coding in, 548-50, 565
 - ion conductance of, 401-3
 - ion exchange in, 403
 - junctional transmission
 - facilitation and posttetanic potentiation, 410-13
 - lateral geniculate
 - hue-discrimination function of, 464
 - responses of, 468-69
 - wavelength discrimination by, 453-56
 - lower-order hypercomplex, 471-72
 - membrane of, 401-4
 - models of coupling of, 419-20
 - modulation of, 65-70
 - motor
 - cerebellar influences of, 595-98
 - inspiration and expiration, 584-85
 - movement detector, 432
 - polysensory
 - in reticular formation, 545-48
 - pontobulbar, 547
 - presynaptic interactions in, 413-18
 - pyramidal tract
 - membrane potential of, 557
 - surround inhibition in, 562
 - receptive-field organization of, 437-38
 - retinal
 - average-response histogram, 466
 - direction-selective, 462-64
 - on and off responses of, 451, 461, 465
 - receptive fields of, 464-65
 - responses of, 460-68
 - temporal characteristics of, 467-68
 - trigger action of, 459
 - wavelength-dependent response of, 451
 - and sensory transmission, 544-45
 - spike-interval variability, 548
 - spinal reflexology, 573
 - squid giant axon, 401-3
 - synaptic membranes of, 404-7
 - acetylcholine effects, 407
 - permeability of, 404-6
 - thalamic joint, 434-35
 - transformation of, 472-74
 - transmitter release from, 407-10
 - coupling mechanisms, 408-9
 - quantum hypothesis of, 407-8

- synaptic delay, 409-10
- visual
 - properties of, 457
- Nerve fibers
 - acoustic
 - frequencies of, 489
 - mode of activity of, 502-3
 - adaptation by, 530-32
 - atrial
 - specialization of, 301-2
 - auditory, 440-41
 - axon size, 573-75
 - basal ganglia, 598-601
 - in blood vessels, 237-38
 - conduction rates through, 589
 - and cutaneous sensation, 544
 - development of, 70
 - first-order somatic afferent, 430-33
 - gamma
 - activation of, 583
 - intrafusal contraction, 573-75
 - of Limulus eye, 516-17
 - mechanism of reconnection of, 61-62
 - mechanoreceptor, 436-37
 - modulation of, 66
 - myocardial
 - action potentials of, 298-301
 - ion movement across, 297-98
 - transmembrane potential for, 296-97
 - myotypic responses of, 66-67
 - optic, 460-61
 - Purkinje
 - compared with ventricular, 303-4
 - pyramidal
 - output system of, 561
 - refractory period of, 303-4
 - regeneration of
 - mechanisms of, 70-77
 - selective, 59-60
 - spindle, 573-78
- Nerve, optic
 - efferent control of, 543
 - of Limulus, 523
 - on-off and off responses of, 530
 - pattern of nerve impulses on, 530
 - regeneration of, 59-60, 62-65, 70-72
- Nerve, vagus
 - and cardiac contractility, 281-82, 302
 - lung receptors of, 586
- and systemic circulation, 227
- Nervous system
 - afferent
 - and perception, 427-84
 - static properties of, 428-29
 - amino acids of, 101
 - at cellular level, 401-26
 - cell membrane, 401-4
 - electrotonic junctions of, 418-22
 - facilitation and posttetanic potentiation, 410-13
 - heterosynaptic facilitation, 415-16
 - presynaptic interactions, 413-18
 - synaptic delay, 409-10
 - synaptic membranes, 404-7
 - transmitter release, 407-10
 - central effects of proprioceptive input, 578-82
 - developmental histology of, 70
 - formation and reformation of efferent connections, 65-73
 - higher functions of, 543-72
 - of inner ear, 495
 - in Limulus vision, 528-29
 - motor mechanisms of, 573-606
 - basal ganglia influences, 598-601
 - thalamic influences, 601-2
 - and respiration, 129-32
 - and sound orientation, 487-88
 - spindle innervation, 573-78
 - control of fusimotor activity, 576-78
 - fusimotor effects on afferent discharge, 575-76
 - fusimotor innervation and intrafusal fiber contraction, 573-75
 - terminology of, 575
 - supraspinal mechanisms of
 - mechanisms of motor control, 587-602
 - corticobulbospinal system, 590-92
 - corticospinal system, 587-90
 - discrete movement, 587-92
 - posture control, 592-95
 - reticulospinal system,
- 593-94
- vestibulospinal system, 594-95
- Neuron
 - see Nerve cell
- Nexus
 - electrotonic junction at, 418
- Nitroglycerine
 - on coronary circulation, 274
- Node of Ranvier
 - depolarizing at, 407
- Nomogram
 - for oxygen uptake prediction, 134
- Norepinephrine
 - blood vessel response to, 241, 245
 - cardiac electrophysiology, 299, 304-6
 - cardiac electrorelease of, 291
 - on coronary circulation, 262-66, 271, 275-76
- Nucleus cochlearis
 - in hearing, 496-99
- O
- Octopus
 - excretion in, 170, 172, 174
 - kidney function in, 169
 - memory in, 550
- Ocypode albicans
 - excretion in, 174-75
- Oestrogen
 - see Estrogen
- Olfaction
 - afferent mechanisms of, 428
- Olfactory tract
 - regeneration in, 61
- Oligomycin
 - on ATPase phosphorylation, 43
 - on membrane transport, 40
- Ommatidium
 - of Limulus
 - diagram of, 515
 - potential of, 521-23, 531
- Optic nerve
 - see Nerve, optic
- Orconectes virilis
 - sodium reabsorption by, 177
- Organ of Corti
 - cytoarchitecture of, 495-97
- Ornithine transcarbamylase
 - comparative studies of, 106
 - in gastric mucosa, 144
- Orthoptera

- hearing by, 487
- Osmolarity
 - on transport, 37-38
- Osmosis
 - forces of, 28
 - see also Membrane transport
- Osteocytes
 - parathyroid hormone effects on, 357-58
- Ouabain
 - as ATPase inhibitor, 39-40
- Ovarian ascorbic acid depletion test
 - question of specificity of, 330-32
 - thyrotropin effect on, 320-21
- Ovary
 - lymph of, 214
- Ovulation
 - copper salt induction of, 336
 - hormone changes during, 379
 - inhibition of
 - by hypothalamic and cerebral substances, 338
 - luteinizing hormone levels during, 332-34, 336
- Ovis
 - hearing of, 490, 492
- α -Oxoglutarate
 - membrane transport of, 29
- Oxygen
 - pulmonary transfer of, 126-27
- Oxygen consumption
 - myocardial, 265-70
- Oxytocin
 - blood vessel response to, 241

P

- Pachygrapsus
 - excretion in, 178-79
- Pacian corpuscles
 - stimulation of, 430-31
- Pain
 - perception of, 438-39, 544
- Palaemonetes antennarius
 - sodium reabsorption by, 177
- Palaemon serratus
 - excretion in, 179
- Pancreas
 - amino acid uptake by, 22
 - lymphatics of, 212-13
- Papaverine
 - on coronary circulation, 276
- Parathormone
 - on membrane transport, 35
- Parathyroid gland
 - ultrastructure and secretion of, 354-56
- Parathyroid hormone, 349-72
 - actions of, 357-65
 - on bone, 357-63
 - on gastrointestinal tract, 364-65
 - on kidney, 363-64
 - assay of, 352-54
 - in body fluids, 353
 - calcium-mobilizing, 352-53
 - immunoassay, 354
 - in plasma, 353-54
 - calcitonin, 356-57
 - and calcium homeostasis, reviewed, 349
 - chemistry of, 350-52
 - amino acid sequence, 351
 - electrophoresis, 350
 - empiric formula, 350-51
 - structure-activity relationships, 351-52
 - human and porcine preparations of, 352
 - isolation techniques, 349-50
 - mechanisms of action of, 365-66
 - structure and secretion of gland, 354-56
 - calcium environment, 354
 - magnesium effect on, 355
- Parietal cells
 - histamine stimulation of, 154-55
- Parkinsonism
 - basal ganglia effects in, 600
 - spindle activity in, 579-80
 - thalamic lesions to relieve, 601
- Parlow assay
 - see Ovarian ascorbic acid depletion test
- Penis
 - lymphatic endothelium of, 200
- Pepsin
 - gastric formation of, 142
- Pepsinogens
 - types of, 142
- Peptic ulcer
 - gastric secretion with, 156, 162
- Perception
 - afferent mechanisms of, 427-84
 - hearing, 440-50
 - introduction, 427-29
 - somatic afferent pathway, 429-39
 - vision, 450-76
- of auditory patterns, 45-47
- of auditory space, 447-50
- neural mechanisms of, 435-36
- of pain, 438-39
- of visual pattern, 456-74
- Pericardium
 - lymphatics of, 210-11
- Periplanata americana
 - excretion in, 185
 - glycogen metabolism in, 90
 - lipid metabolism in, 97
- Peritoneum
 - lymphatic transfusion route, 202-3
- Pernicious anemia
 - autoimmunity of, 160-61
 - gastric secretion with, 157-61
- Phenylalanine
 - in tyrosine biosynthesis, 102
- Phloretin
 - to inhibit ATPase, 39
- Phlorhizin
 - to inhibit ATPase, 39
- Phormia regina
 - lipid metabolism of, 98
- Phosphate
 - renal excretion of
 - parathyroid hormone effect on, 363-64
- Phosphohexose isomerase
 - in gastric mucosa, 144
- Phospholipids
 - comparative distribution of, 98
- Picrotoxin
 - on Limulus eye, 529
- Pigment
 - genes controlling, 75
- Pituitary gland
 - growth hormone secretion in, 314-20
 - hormones of, 374
 - luteinizing hormone secretion by, 329-38
 - thyrotropin release by, 320-29
 - see also Adenohypophysis
- Plasma
 - parathyroid hormone assay in, 353-55
- Pleura
 - lymphatics of, 209-10
- Polysaccharides
 - comparative metabolism of, 88-90
- Posttetanic potentiation
 - mechanisms of, 411-12
 - sodium role in, 413
- Posture
 - CNS control of, 592-95

reticulospinal system,
593-94
and circulation, 236
and ventilation, 125
Potassium
on cardiac excitation-
contraction, 294-98, 302-
3
insect transport of, 186-
87
in mitochondria, 44-45
in nerve cell, 402
parathyroid hormone effect
on, 365
pump, 24-27, 38
Potassium citrate
on cardiac viability, 295
Prednisolone
for pernicious anemia,
161
Pregnancy
endocrinology of, 374
extrauterine, 376-77
nutrition in, 374
preimplantation stages of,
375
transport mechanisms in,
35
Primates
color vision in, 452-56
Procaine
on cardiac arrest, 295
Procamburus clarki
excretion in, 174, 177
Progesterone
in the Graafian follicle,
379
on membrane transport, 34
synthesis of, 380-81
and uterine lytic effect,
385-86
Prolactin
luteotropic role of, 381-
82
Proline
comparative metabolism of,
102-4
Pronethalol
cardiac effects of, 304
on coronary circulation,
262-63
Propanolol
cardiac effects of, 304
on coronary circulation,
262-63
Protein
in gastric juice, 143-44
Psychology
physiological aspects of,
428
Psychophysics
history of, 428
Pulmonary edema
conference on, 114
lymphatic role in, 209
Puromycin
on cell reaggregation, 76-77

Pyramidal tract
and motor control, 587-
602
output system of, 560-62,
567
Pyridoxal
on transport processes,
35

Q
Quantum responses
of Limulus eye, 533-37
nerve transmission, 407-
10
Quaternary ammonium com-
pounds
membrane transport of, 30

R
Rapid eye movement state
and gastric secretion,
152
Rats
hearing capacity of, 505
Reactive hyperemia
development of, 241-42
model of, 244
Redox pump
in membrane transport, 47-
49
Reflexes
cardiac
contractility, 281-82
cardiovascular
and systemic circulation,
225
conditioned
and cardiovascular system,
226
corneal
neurological basis of,
67
of supernumerary limbs,
69
Renal processes
invertebrate, 169-96
see also Kidney
Reproduction, 373-400
bibliography of, 373
chimaerism, 392-95
chromosomal abnormalities,
390-92
hybrid sterility, 391-92
Y chromosome, 390-
91
comparative, 376
control of, 374
Graafian follicle, 376-79
immunological aspects of,
374
mechanism of sex hormone
action, 389-90
trophic control of corpus
luteum, 380-84
uterine role in corpus luteum

regression, 384-89
Reproductive system
lymphatics of, 214
Reptiles
hearing by, 489-90
Reserpine
on coronary circulation,
275, 299
and peptic ulcer, 163
Respiration, 113-40
books, reviews, confer-
ences on, 113-14
California apparatus for
cows, 8-10
control of, 128-32
baroreflexes, 130
chemoreflexes, 130-31
consciousness of breathing,
132
descending pathways,
129-30
integrative activity, 131-
32
mechanoreflexes, 131
motor, 582-86
respiratory centers, 129
sense organs, 128-29
distribution of ventilation
and blood flow, 123-25
distributed inhomogeneity,
123-24
regional inhomogeneity,
124-25
gas transport in body fluids,
127-28
instruments and methods,
132-34
computing devices, 134
exposure devices, 133
gas analysis, 133
measurement of volume,
flow, and pressure, 132-
33
lung and thorax, 114-15
anatomy and histology of,
114
vegetative physiology of,
114-15
pulmonary circulation, 120-
23
hemodynamics, 120-22
microcirculation, 122-
23
right-heart, 122
pulmonary gas transfer,
125-27
alveolar-arterial tensions
and gradients, 125
diffusion, 125-27
and systemic circulation,
123
ventilation physics, 115-20
Reticular formation
conditioning role of, 553
polysensory neurons of,
545-48, 565
and posture control, 593

- Retina
 critical flicker frequency of, 467-68
 efferent control of, 564
 nerve cells of
 density maps of, 460
 movement detectors, 432-33
 organization of, 461-62
 single-unit activity of, 457
 trigger action of, 459-60
 Rhabdom
 of *Limulus* eye, 526
 diagram of, 515
 Rhodnius
 excretion in, 185-87, 190

 S
 Saimiri (squirrel monkey)
 color vision in, 452-53
 Salamander
 excretion in, 175
 Salmo gairdnerii
 excretion in, 174, 177
 Salmonella
 transport into, 36-37
 Sauropsida
 hearing anatomy and function of, 489-91
 Schistocerca
 N-acetyldopamine formation by, 103
 metabolism of, 95
 Schistocerca gregaria
 excretion in, 186, 188, 192
 Scintillation counter
 and coronary circulation, 273-74
 Scolopidia
 hearing role of, 486-87
 Secretin
 and gastric secretion, 150
 Semantics
 of physiology, 5-8
 Sensorimotor cortex
 and motor control, 588
 Sepia
 excretion in, 178, 180
 Serine
 comparative metabolism of, 101
 Sex
 intersexuality, 391
 Sheep
 freemartin condition in, 394
 hearing capacity of, 504
 Shock
 baroreceptor mechanisms of, 234
 Skin
 neurophysiology of sensation in, 544
 somatic afferent pathways of, 429-39
 Sleep
 circulation during, 234
 neurophysiology of, 543
 Snail
 excretion in, 170, 173-74, 176-77, 179, 181
 nerve cells of, 404
 Sodium
 on cardiac contractility, 296-98
 insect transport of, 186
 invertebrate filtration of, 176-78
 invertebrate reabsorption of, 176-78
 in nerve cell, 402-4, 413
 pump, 24-27, 31, 38
 and transport processes, 29-32
 Sodium acetate
 on gastric secretion, 162
 Sodium citrate
 on cardiac viability, 295
 Sodium ethylenediaminetetraacetate
 on cardiac viability, 295
 Somatotropin
 see Growth hormone
 Spermatogenesis
 by XX testis, 391
 Spinal cord
 coding in, 430-31
 electrotonic interaction in, 421
 grafting experiments with, 58-69
 habituation in, 554
 motor control by, 589
 and pain perception, 438-39
 postsynaptic potentials in, 544
 presynaptic inhibition in, 413-15
 in systemic circulation, 230-31
 Spirometer
 new types, 132
 Spleen
 lymphatics of, 214
 Squid
 nerve cells of, 401-3
 Stapedius
 electromyograph of function of, 494
 spindles of, 586
 Staphylococcus aureus
 transport into, 37
 Starvation
 and growth hormone secretion, 316, 319
 Steroids
 comparative metabolism of, 98-100
 Stomach
 intracellular histochemistry of, 160
 see also Gastric
 Strabismus
 early correction of, 476
 Streptomyces
 transport into, 36, 38
 Streptomycin
 ototoxicity of, 496-97
 Stress
 and ACTH secretion, 342, 344
 and growth hormone secretion, 318
 and pulmonary gas transfer, 126
 Stress ulcer
 gastric secretion with, 163-64
 Stretch
 and presynaptic inhibition, 413-14
 static component of, 576
 Succinate
 anaerobic production of, 92
 Sucrase
 active transport role of, 50-51
 Sugars
 facilitated diffusion of, 24, 30
 membrane transport of, 23, 51
 Sulfate ions
 membrane transport of, 29
 Sulfhydryl groups
 transport role of, 49-50
 Superior colliculus
 functions of, 458-59
 Superior olive
 hearing role of, 498-99
 neurons of, 443
 and space perception, 448-49
 temporal discharge patterns of, 450
 Surfactant
 alveolar role in, 114-15
 physical role of, 118-19
 Sustained dilator substance
 description of, 232
 Sympathetic nervous system
 and systemic circulation, 226
 see also Nerve; Nervous system
 Synaptic disk
 electrotonic junction at, 418

- Systemic circulation
see Circulation, systemic
- Systole, atrial
on cardiac function, 282-83
- T
- Tactile sensation
and Mach bands, 466
- Taurine
comparative metabolism of, 102, 105-6
- Tectum
motor role of, 599-600
- Teleology
discussion of, 10-14
- Teleosts
amino acid metabolism in, 106
hearing by, 488
- Temperature
and cell aggregation, 76
and membrane transport, 38
and pulmonary gas transfer, 126
vascular role in regulation of, 235-36
- Tenebrio molitor
excretion in, 189
glycogen of, 89
- Termite
hearing by, 486
- Testicle
androgenic atrophy mechanisms, 339
chromosome role in dysgenesis of, 391
spermatogenesis by XX testis, 391
- Testosterone
localization and mode of action of, 390
and luteinizing hormone secretion, 334-36
- Tetrodotoxin
on nervous system, 403-4
- Thalamus
inhibitory postsynaptic potentials of, 544
and motor mechanisms, 601-2
output characteristics of, 434
- Theraponidae
hearing by, 488
- Thoracic duct
lymphatics of, 212-13
- Thorax
anatomy and histology of, 114
- Thymus
function of, 216-17
and lymphoid tissues, 197, 216-18
and immune response, 217-18
- Thyrocalcitonin
in bone, 362
- Thyrotropin
assay and inactivation of, 320
heterothyrotrope factor, 321
molecular individuality of, 320
secretion of, 320-29
circadian rhythm of, 324
inhibitors of, 321-23
- Thyrotropin-releasing factor, 322-28
isolation of, 326
purification and chemistry of, 325-28
amino acids of, 328
structure of, 327-29
- Tidal volume
measurement devices, 132-33
- Toad bladder
transport across, 32
- Tongue
spindles in, 486
- Trachea
mucosa of
structure and function of, 114
- Transfusion
by peritoneal lymphatic route, 202-3
- Transport
see Membrane transport
- Treadmill
for small animals, 134
- Trehalose
invertebrate role of, 94
- Triglycerides
comparative metabolism of, 95-98
- Tryptophan
comparative metabolism of, 103
- Turner's syndrome
chromosomes in, 390
- Turnover rate
definition of, 6-7
- Tyramine
cardiac effects of, 306
- Tyrosine
comparative metabolism of, 102-3
- U
- Uca mordax
excretion in, 172, 180
- Ulcer
see under Gastric, Duodenal, Stress
- Urea
as ATPase inhibitor, 39
Urea cycle
comparative studies of, 106-8
- Urine
hypotonic and hypertonic, 169
invertebrate transport of, 179-84
parathyroid hormone assay in, 353
- Uterus
on corpus luteum regression, 384-89
-embryo relationships, 376
estrogen actions on, 389
intrauterine contraceptive devices, 374
intrauterine intraperitoneal transfusion, 202-3
- V
- Vagina
estrogen effects on, 389-90
- Vagotomy
and gastric secretion, 151-52
- Vagus nerve
see Nerve, vagus
- Valinomycin
on mitochondria, 45
- Vasoconstriction
nerves affecting, 228-29, 232
- Vasodilatation
and gastric secretion, 153
nerves affecting, 229, 231
- Vasopressin
blood vessel response to, 241
on coronary circulation, 276
- Veins
lymphatic communication with, 205-7
- Ventilation
and blood flow, 123-25
CSF in regulation of, 114
nervous control of, 129
physical aspects of, 115-20
analysis of work of, 116
lung-thorax as forced oscillatory system, 115-18
mass flow in airways, 116-17
muscular effort, 119-20
pressure-volume relations of lung-thorax, 117-18
surfactant, 118-19

- see also Breathing; Respiration
tion
- Vertebrates
evolution of, 190-91
hearing in, 488-93
acoustic behavior, 488-89
anatomy and function, 489-91
- Vesicles
transport in, 202
- Vibrio foetus
to prolong corpus luteum, 387
- Vision
afferent mechanisms of, 450-76
binocular, 474-76
color, 450-56
in arthropods, 537-39
primate behavioral studies of, 452-53
primate wavelength discrimination, 453-56
deprivation studies of, 475-76
in *Limulus* eye, 513-42
- adaptation, 530-33
electric response origins, 518-27
introduction to, 513-18
lateral inhibition, 527-30
pigments and spectral sensitivity, 537-39
polarized light sensitivity, 533
quantum responses, 533-37
monocular vs. binocular deprivation of, 65
ocular dominance, 474-75
pattern perception, 456-74
visual cortical neurons, 469-71
and visual perception, 428
see also Eye
- Visual system
specific regeneration in, 63
- Vitamin B₆
see Pyridoxal
- Vitamin D
and parathyroid hormone, 360, 362-63, 365
- Viviparus viviparus*
excretion in, 170-74, 177
- W
- Water
active transport of, 191-92
immersion in
and ventilation, 126-27
membrane transport role of, 28-29
- Z
- Zebra
chromosomes and hybrids of, 392
- Zollinger-Ellison syndrome
and gastric secretion, 157-58
- Zonula occludens
electrotonic junction, 418

